55

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 2 3 2014
Symbol: ENV-DO-14-0322
LAUR: 14-27915
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 20

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 twentieth 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.

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Enclosure 1 includes the pertinent documentation for nine 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/kt

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 20

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 aosburn@lanl.gov)
Michael T. Brandt, ADESH, (E-File)
Raeanna R. Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
Enrique Torres, ADEP, (E-File)
James S. Clemmons, LTP, (E-File)
Donald L. Allen, LTP, (E-File)
Scott A. Miller, LTP-SSS, (E-File)
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 20
ENV-DO-14-0322
LA-UR-14-27915

October 2014

Los Alamos
NATIONAL LABORATORY
EST. 1943

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 20

ENV-DO-14-0322

LA-UR-14-27915

Date: OCT 2 3 2014

ParentID	Intermediate Daughters	PKG_ID
S811692		68676
S813620		93841
S813620		93842
S813620		93843
S813620		93844
S816304		94007
S816304		94008
S816342		94011
S816342		94012
S816342		94013
S816342		94014
S816342	94010	94016
S816394		94003
S816692		68565
S816692		68581
S816768		69519
S816768		69604
S816768		69620
S823276	68752	69091
S823276	68752	69191
S823276	68752	69217
S824551		90715
S824551	90718	92468
S824551	90718	92469
S824551	90718	92470
S824551	90720	92476
S824551	90720	92477
S824551	90721	92479
S824551	90719	92481
S824551	90719	92482
S824551	90722	92484
S824551	90723	92488
S824551	90723	92489
S824551	90725	92492
S824551	90724	92494
S824551	90724	92495
S824551	90724	92496

S811692

S811692

Container Profile 753923

File Options Reports Help

S811692

753923	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

S811692

S811692
- LA00000069002 – EMPTY
- LA00000068676 – WCS
  - LASB50005

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000068676	0.0	kg

UET

Working Copy
Date: 11-20-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET (B2) 9/22/14

4.1[6][B]	Parent Waste Container No.:	S811692 / 69002 ~~S811692 / 69002~~ MB 11/20/13
6.2[4]	Date Processed:	11-20-13
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: (> 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] / 191352 / 11/20/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: ~~5811692~~ GM 1/25/13 / ~~69002~~ BS 9/22/14 5811692	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	305.4 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	22 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	327.4 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.: 5811692

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68676			
10.1[4]	Daughter Drum Filter No.	L-10044			
10.1[4]	Daughter Drum Bag Filter No.	LM-887			
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				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	2.5 GALLONS			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING			
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[10]	Daughter Drum % Full (%)	100 %			
10.5[3]/10.6[2]	Description Waste Added During Processing	PLASTIC KITTY LITTER			

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S811692

Comments: LIQUIDS, KITTY LITTER, LEAD SHIELDING, POLY-LINER LID, NITRATE SALTS

11.1[1] Performed By: M. Gonzalez 1239851 11/20/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martini 149235 11/25/13 1017
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-20-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413659
Lot No.: 208849
Manufacture Date: 2010

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.: DS-019
Serial No.: LM-385
Manufacture Date: 12/12

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

5. [11] Performed By: M. Gonzalez [signature] 1239985 / 11/20/13
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/A

8.1[1] Performed By: Miguel Gonzales [signature] 1239985 / 11/20/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez [signature] 149235 11/25/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11/20/13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69007

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038369
Cal. Expiration Date: 12/18/13
Range in ft-lb: 30-60
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: M. Gonzalez / [signature] / 1239985 / 11/20/13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10/14/14

7.[34][D] 85-gal overpack drum gross weight (lb): 175.4 lb

Comments: N/C

8.1[1] Performed By: M. Gonzalez / [signature] / 1239985 / 11/20/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 1499285 / 11/25/13
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 11-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68676

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BoP
Model No.: 6CPVC1.5-2SPVC
Serial No.: L-10044
Manufacture Date: 05-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	~~036255~~ 036245 11-18-13
Cal. Expiration Date:	12-18-13	08-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% of CW +/-6% of CW	+/-3% of CW +/-6% of CW

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

Performed By: James Sutherland / [signature] / 1116662 / 11-18-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-887
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: ~~6~~ 30 ft-lb 11-18-13

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
(32) 9/22/14

5.[34][E] Drum ID No.: ~~68766~~ 68676

Comments: N/C

5.[35] Performed By: James Sa[illegible] / [signature] [illegible] / 11-18-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149235 11/25/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68676

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

M&TE No.: 038369
Cal. Expiration Date: 12/18/13
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: M. Gonzalez (Operator (print)) [signature] (Signature) 1239485 1 (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-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: M Gonzalez (Operator (print)) [signature] (Signature) 1239485 1 11/20/13 (Z # Date)

6.[17][C] 2 in. bung plug torque value: N/A ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: N/A in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68676

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 473.0 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: M. Gonzels (Operator (print)) [signature] (Signature) 1239985 (Z #) 11/20/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 149237 (Z #) 11/25/13 (Date)

Working Copy
Date: 11-20-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5811692

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): 305.4

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: M. Gonzales [signature] 1239981 11/20/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 1149237 11/20/13
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] 1149235 11/25/13 ~~10/29/13~~ GM 11/25/13 1020
SOS/SOM or designee (print) Signature Z # Date Time

Imprinter SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S811692 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 376.8345
Total PE-Ci Activity: 8.33E-01 Equivalent Combustible PE-Ci: 3.12E-01
Total Fissile Gram Equivalents: 4.24E+00 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.

RTR pre-screen indicates ~ 5.5 gallons of free liquid.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 212 lbs. and generator data shows 10 items of nitrate salts with weights ranging from ~[redacted] - [redacted] lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, chromium, mercury
Contain liquids

Performed By: Johnny Smallwood (IHS Representative (Print)) | Signature | 241659 (Z#) | 7-31-13 (Date)

LTP Engineering

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

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | 112609 (Z#) | 8/5/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE and Kitty Litter Ratio

Performed By: Gilberto Martinez (TRU Operations (Print)) | Signature | 149235 (Z#) | 8/8/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Do not push or press on waste with hands. Use hexarmour gloves during processing. Use tools to remote handle waste or to push or press.

Approved By: Jose Perez (OM or designee (Print)) | Signature | 221452 (Z#) | 8-12-13 (Date)

Inspected 5/17/13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

1971

Production Control

Container ID: S811692 Container Type: 55-GAL Gross Weight (lbs): 377

Inner Seal #: 009066 Filter Prefix: None Filter Serial #: None

AK Waste Stream: LA-MIN02-V.001 Certified RTR BDR: No BDR

TWSR Comments: None

Total PE-Ci Activity: 8.33E-01 Equivalent Combustible PE-Ci: 3.12E-01 AM-241 Total Ci No data

Total Fissile Gram Equivalents: 4.2 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D007; D008; D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 2/16/2013 Comment: Prohibited liquid >1% - approximately 5.5 gallons

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 / Susan B Ramsey / 100681 / 5/21/13

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:

Performed By: / / / /

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: / / / /

TRU Remediation Operations (Print) / Signature / Z Number / Date

Discardable Waste Log Sheet

DrumID: 009066

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-319-F1	21.82	NITRATE SALTS		1.7	42	5/11	
2	IXFS-320-F1	12.95	NITRATE SALTS		0	52	5/11	
3	IXFS-321-F1	4.32	NITRATE SALTS		0	52	5/11	
4	IXFS-322-F1	18.86	NITRATE SALTS		0	52	5/11	
5	IXFS-323-F1	8.18	NITRATE SALTS		0.2	52	5/11	
6	V425A	7.72	NITRATE SALTS		1.47	52	5/11	
7	IXFS-325-F1	2.73	NITRATE SALTS		0.42	52	5/11	
8	IXFS-326-F1	3.18	NITRATE SALTS		0	54	5/11	
9	IXFS-327-F1	8.64	NITRATE SALTS		0	52	5/11	
10	IXFS-328-F1	7.95	NITRATE SALTS		2.2	52	5/11	
		96.35 kg						

ATTACHMENT 1

Page 1 of 1

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

5.[1] Sample Date: 5/21/13

Container No. (5.[1])	S811692					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT 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])	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: [illegible] — 727475
CCP (Print) Z #

Reviewed By: [illegible] 735566
CCP (Print) Z #

Comments:

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

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

6.1[3] Performed By: Susan Ramsey, [signature] [illegible] 5/22/13
Waste Handling Operator (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130521c\
Data File : S811692.D
Acq On : 21 May 2013 3:54 pm (#1); 21-May-13, 15:53:45 (#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 16:02:12 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	3.529	96	3921155	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.868	117	3352222	177.00	ppmv	-0.03

Target Compounds	Qvalue

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

vocgas.m Tue May 21 16:02:20 2013

11-20-13

0400 Assuming WCRRF operations center - CRL rde
0415 pre job being ~~conducted~~ 11-20-13 performed by SCS Bruce on Attachment A and 1100's.
0751 Permission granted to lower vehicle access gates for shipment out of WCRRF
0828 Bagging off 3891279 and will be putting on part cover to dress and retape catch pan.
0839 Vehicle access gates have been restored shipment out of WCRRF as 11-20-13 50-69 is complete.
0905 Bag off is complete, starting decon of catch pan
0935 Bagging on 3811692. Decon of catch pan is complete
1206 Bagging off 3811692 and will denest after lunch.
1229 Bag off is complete.
1232 Pat's requesting operators use hand and foot monitor before exiting for lunch.
1245 Operators exiting for lunch.
1416 Starting movement into 50-69
1500 Starting inside rounds, completed movement into 50-69.
1512 operator notified ops center that while slipping out of 50-194 he hyperextended left knee.
1515 entering EP-WCRR-RM-EDP-0309, SCS and SCM have been notified and operator being taken to IH minor injury
1520 Item 43 is DOS, PPD in place, OK to proceed per CSE documentation.
1522 OM has been notified and will make other notifications.
1532 Work Care has notified operator to place ice on left knee
1536 Inside rounds complete. Starting movement out of 50-69.
1548 Starting to denest 2 drums and will bag on 3863789 after denesting is complete.
1601 Operator has been advised to ice every 15 mins, keep elevated and take ibuprofen.

continued on next page - CRL rde

11-20-13 ~ Continued on next page - CWelande

1406 Exiting EP-WCER-PM-EOP-0309

1407 Starting outside rounds.

1430 Outside rounds complete.

1440 Rounds signed off by BDS.

1455 Dressing and Bag on is complete.

11-20-13 1801 Being Relieved by DCO Turi Coleman - CWelande

1809

no further entries this page

11-20-13

1801 Assuming WCRR operations center. KColeman
1817 Turnover with day shift being conducted.
1822 Pre-job being conducted by SBS.
1845 ~~1832~~ Pre-job concluded.
1930 Operators entering 5069 to resume operations on drum S863789
2003 Tech 38 notified ops. center that the lights inside 5069 flickered. He states everything appears to be running normally and no alarms are sounding. SOS, SOM notified.
2138 Bagging off 1 daughter, bagging on another daughter.
2150 Bag off/on complete.
2328 Bagging off 1 daughter, bagging on S864663.
11-21-13 0000 Bag off/on complete.
0015 Beginning outside rounds. Operators out for lunch.
0041 Outside rounds complete.
0116 Operators back from lunch.
Unexpected condition 0139 notified by RCT that he is calling a pause and having the operators pull out of the box due to the CAM manager being frozen. SOS, SOM notified. RCT trying to call the on call RC
0145 RCT states that the screen for the CAM manager has gone completely blank. He has instructed the operators to perform a controlled exit. SOS, SOM notified. Everything is in a safe configuration.
0200 RCT's have been instructed by the on call RCT to unplug the CAM manager and plug it back in to see if it will reset.
0201 RCT's entering 5069 high bay to unplug/plug the CAM manage
0206 RCT states the CAM manager appears to be working again and will wait one count cycle to be sure.
0211 RCT's instructed by on call RCT to let the CAM manager run two full cycles.
0245 Operators entering 5069 to resume operations on S864663.
0335 Beginning a drum movement from 5069 to a transportainer and transportainer to 5069.
0416 Both drum movements complete.
0426 Beginning inside rounds.
0438 Item #63 is OOS, okay to proceed per CSE documentation.
Continued on next page KColeman

11-21-13 Continued from next page. Coleman
0442 Inside rounds complete.
JJ 0458 Both rounds reviewed by SOS.
0523 Bagging off 1 daughter.
HA 0550 Bag off complete. Port cover on parent port. Operators have cleared the WCG.
0556 Air quality has arrived to perform the weekly stack monitoring.
11-21-13 0605 Being relieved by OCO Claussa Velarde - Coleman

No further entries this page

11-20-13 DAY SHIFT

0607 Reviewed shift turnover checklist and assumed WCRR SOM position John Lundagnoli

0658 Completed attending the pre-job brief conducted by the SOS (Gilbert) Safety topic was Good Practices for Contamination Control: Check hands and feet regularly. The SOS provided an update for the facility with drum bagged on, and decon of pan required after bag off. Brief conducted on current shift orders, briefed on IWDs, briefed on UET requirements for PEITs item. There is one transfer scheduled out to AREA G

0715 Completed the daily phone call to AREA G SOM statusing POD

0828 Operators complete processing S891279 from night shift which generated 1 daughter. The port cover will be placed on the BAGlot, and operators will wipe down the catch pan upon being accessable.

0905 The transfer of 13 drums from WCRRF to AREA G is completed with operators observed with proper PPE being worn.

0935 Inside operators report bagging on Parent drum S811692.

0943 Bag on is noted complete and operators will continue to process

1204 Completed attending the scheduled 1100 Contamination review meeting list of actions/follow up, will be shared with Operators.

1206 Operators Bag Off S811692 and indicate they will de-nest after lunch.

1229 The bag off was noted completed and the port cover was put in place

1232 RCTs request all operators to utilize the hand foot monitor prior to exiting.

1245 Operators exit for lunch

1300 EP-DIV-AP-20059 IPC-1 - EWMO Watchbill Administration was reviewed and the OCO logbook was updated.

1512 Notification was made to the Operations Center that an operator was supporting the movement from 50-194 transportainer to 50/69 and when stepping out of the transportainer took one large step to the asphalt instead of onto cement then asphalt and hyper extended the knee on twisted it. Notification was made to management / SOM

1518 OCO entered EP-WCRR-RM-EOP-0309 - Injured person at WCRR minor injury - there were no open cuts and ES/IH will evaluate and support transfer of operator to their own primary care physicians.

1525 Notified OM and OM will notify DOE

1600 Information from the ES/RM (DB) indicates "Work care" requests the operator to ice the area - report to work in the am. If unable, then notify supervisor

1606 OCO exits EOP-0309 - Injured person at WCRRF

11-20-13 DAYSHIFT cont.

1627 Completed escorting LANL/IH (R. Stone) to the transportainers to observe and measure step area. He suggested painting with non-SKID black and yellow hatch marks - Email will follow after he reviews OSHA requirements.

1658 Inside operations complete de-nesting and bag on of Parent 9863789.

1801 Current condition of Bag-on - drum was opened - liquid was neutralized - waste is in daughter drum

1810 Completed shift turnover checklist with on-coming SOM -

1815 Relieved of SOM duties by R. Axtell. [illegible]

No further entries this page

11/20/13 Night Shift

1815 Reviewed shift turnover checklist, approved and posted Night shift operations watchbill and assumed WCRR SOM position.

1847 Prejob brief conducted by SOS (C. Mullins) was completed. IH safety topic was todays injury at the transportainer - giving greater attention to path of travel and w/ inclement weather moving in. RP-1 had thorough discussion on recent contamination events - covered corrective actions from todays meeting i.e. glove surveys, painting of floor, manufacture of new drip pan, WCG maintenance etc. Briefed the active shift orders for manual drum movements and preventing bag tears.

2003 Notified by OCO that a minor flicker of lighting occured in 50-69. Operators inside reported no disruption of ventilation system. All systems/instruments operating normally.

2150 Completed bag off of 1 daughter - continuing to process

11/21/13 0000 Completed all bag offs for parent # 5863789 (2 daughters total) bagged on parent # 5864643.

0015 Operators breaking for lunch

0114 Resuming operations.

0139 Notified by OCO that the CAM manager is reported to be frozen. Suspending operations while RP-1 investigates.

0145 RP-1 reported that the CAM manager went completly blank - Operators performing a controlled exit from room 102, parent drum was placed in safe configuration. RCT's are troubleshooting and contacting on call supervision.

0206 Per RP-1 supervision the CAM manager was unplugged and plugged back into power receptacle for reset. It appears to be working normal. Noted that the CAM manager that went down was the one for CAMs A-1 thru ~~8~~ 11/21/13 A-6. No issues with the other CAM managers.

0211 Per RP-1 supervision will have CAMs run through 2 cycles to ensure working properly prior to resuming operations.

0245 Resuming operations.

0414 Operators completed movements of drums between 50-69 and transportainers - both ways. 4 drums out of 50-69 and

cont. next page →

11/20/13 Night Shift continued

11/21/13 0414 2 drums moved into 50-69 for processing

0507 Completed review of AM round sheets.

0510 Reviewed compliance tracking worksheet and ensured status board updated.

0550 Operators completed all bagoffs for parent #5864663 (1 Dumpster total). Operators are cleaning inside of glovebox and leaving WCG in safe configuration without drum bagged on due to morning all hands meeting.

11/21/13 0611 Relieved by J. Guadagnoli as SOM. [illegible]

No further entries this page [illegible]

PROJECT NAME WCRR SOS LOG BOOK NOTEBOOK NO.

11/20/13

0600 Assuming SOS Position Mulholland

0615 Conducted shift brief went over status of Glove box Also went over IWD's And Crews briefing. Operators will need to bag off And decon catch pan. due to contamination found. this must be done prior to bagging on Another Drum.

0700 Shift brief Concluded

0751 Started shipment out of WCRR

0828 Bagging off 5891279 and will be putting on port cover & decon Catch pan.

0839 Vehicle access Gate Restored Shipment complete.

0905 Bag off Complete starting Decon

0935 Decon complete Bagging on 5811692

1200 Bagging off 5811692 will Demost after lunch.

1229 Bag off Complete

1245 Operators exiting for lunch

1345 operators resuming operations.

1416 Starting Movement Into 50.69

1500 Started Rounds. Movement In Complete

1512 notified by operator outside while stepping out of Transfer he twisted his knee

1515 entering EOP-0309 iam notified Individual Taken To I [illegible] and called work Care.

1522 OM notified of knee Injury.

1537 work care was notified. needs to place Ice on knee

1545 starting to Record 2 drums. And bag on 5863784

1601 Operator Advised to Ice every 15 min And keep Elevated take Ibuprofen

1606 Exiting EOP-0309

1640 Reviewed Inside And outside Rounds.

1655 Demosting And bag on Complete

11/20/13 1659 Relieved by Clayton Mullins [illegible]

See 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-RTR2-13-0132
Examination Date:	12/2/2013
Waste Container ID:	68676
Video/Audio Recorded Media Number:	LA-RTR2-13-0132 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.: 214.0 kg Tare Wt.: 33.4 kg Net Wt.: 180.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	100 %

CCP Radiography Data Sheet

Waste Container ID: 68676

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):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	168.6
Soils (S):	
Total WMP Weight:	180.6

CCP Radiography Data Sheet

Waste Container ID: 68676

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		12/2/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68676	Count Sequence Number:	23989
Operator:	D3PW2DK1\operator		
Assay Start:	12/13/2013 4:00:07 PM		
Description 1:	1LANDA1879		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, (MT-42)		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 181.0 kg	Net:	181.0 kg
Container:	Volume: 208.0 l	Full:	100.0 %
Density:	0.870 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: 23989
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68676

Batch Number: 1LANDA1879
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 12/13/2013

Net Weight	181000.0 g		
Pu mass	6.07E+000	+- 9.61E-001	g
TRU Alpha Activity	5.88E+000	+- 2.95E+000	Ci
TRU Activity Concentration	3.25E+004	+- 1.63E+004	nCi/g
Pu-239 Equivalent Activity	5.91E+000	+- 2.95E+000	Ci
Pu-239 FGE	4.24E+000	+- 8.75E-001	g
Decay heat	1.95E-001	+- 9.80E-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	8.03E-007
U233	<LLD	<LLD	0.00E+000	5.87E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.72E-006
NP237	1.05E-001	7.38E-005	1.56E-005	3.10E-006
PU238	1.17E-002	1.99E-001	5.06E-002	2.46E-002
U238	<LLD	<LLD	0.00E+000	2.22E-005
PU239	4.13E+000	2.56E-001	5.42E-002	3.17E-002
PU240	3.71E-001	8.43E-002	2.14E-002	1.04E-002
AM241	1.56E+000	5.34E+000	2.95E+000	6.22E-002
PU241	2.40E-002	2.47E+000	6.27E-001	3.05E-001
PU242	1.53E+000	6.03E-003	1.53E-003	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 12·17·13

ITR: _____ Date: 12·17·13

Automated Independent Technical Review

Count Sequence Number: 23989 Batch Number: 1LANDA1879
Counter ID: MCS HENC #1
Container ID: 68676
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/13/2013

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

Expert Review by: Sheri Chandler Date: 12-16-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68676**

BDR Number: **LA13FG12133**

Sampling Date: **12/20/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	398.08	
74-82-8	Methane	6.56	U
67-56-1	Methanol	5.17	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.54	
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	1.08	
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\131220c\
Data File : 68676.D
Acq On : 20 Dec 2013 10:07 am (#1); 20 Dec 2013 10:06 am (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 20 10:15:34 2013
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	4.057	96	7228923	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	5829884	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.913	GC1	113553m	398.08	ppmv	
4) Methanol	0.831	31	1975	5.17	ppmv	100
7) Acetone	1.363	58	1030	0.54	ppmv #	42
12) Benzene	3.717	78	31922	1.08	ppmv	95

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

28
~~29~~
EL 1-15-14

S813620

S813620

Container Profile 757390

File Options Reports Help

S813620

757390	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

S813620

S813620
- 93845 – EMPTY
- 93844
- 93843
- 93842
- 93841

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
24.999738875	%			

Working Copy
Date: 6-18-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S813620

6.2[4] Date Processed: 6-18-13

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, 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: Brandon Chavez / [signature] 120772 6-18-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	5813620
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	424.4 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	160 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	604.4 lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5813620

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93841	93842	93843	
10.1[4]	Daughter Drum Filter No.	KM-544	KM-541	KM-531	N/A
10.1[4]	Daughter Drum Bag Filter No.	L-6853	L6808	L-6877	
10.1[4]	Daughter Drum Purchase Order No.	501103	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	Bop			
	Model No.	6qarc1.525pc			
	Serial No.	L-6458			
	Date of Manufacture	1-13		N	
10.2[5]	POC ID No	93844			
10.2[7][B]/10.2[6]	POC Item Description	salts Kitty litter			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BC 204742		A	
10.2[14]	POC Assembly Gross Weight (lb)	364.6			
10.2[15]	POC Rad. Survey Results (mrem/hr)	700.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			A
10.3[5][A]	Free Liquid Volume/Units	1gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	Lead	Lead	
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 comment	see comments	N
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	50%	60%	60%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter	Kitty Litter	Kitty Litter	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 583620

Comments: plastic, satts, kitty litter

11.1[1] Performed By: Brandon Chance / [signature] [illegible] 6/20/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 1221421 6/21/13 0842
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 4-25-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
- Purchase Order No.: 414996
- Lot No.: 219285
- Manufacture Date: 2011

5.[8] Overpack filtered vent information:
- Manufacturer: NUCFIL
- Model No.: 013
- Serial No.: EL-322
- Manufacture Date: 05/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	09-26-13	12-18-13
Tolerance:	+/-4% cw and +/-6% ccw	+/-3% cw and +/-6% ccw

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

Performed By: Kevin Belcascak / Kevin Belcascak / 123[illegible] / 04/25/13
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: Kevin Belcascak / Kevin Belcascak / 123[illegible] / 04/25/13
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] / 122452 / 6/21/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 6-18-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 93845

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%~~ ±3%FCN ± 6%FCV

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / [signature] 2047121 6-18-13
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: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 175.0 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 1204121 6-18-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / [signature] 1221452 6/20/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 93841

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
- [ ] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
- Purchase Request #: 301163
- Lot #: 5234765
- 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 #: 6CPVC1.5-2SPVC
- Serial #: L-6853
- 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: NUCAL
- Model #: 019DS
- Serial #: KH-349
- Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:
- M&TE ID #: 100216
- Cal Expiration Date: 12-18-13
- Range (ft-lbs or in-lbs): 40-200
- Tolerance: ± 3% of 2 to 6% of cl

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% of 2 to 6% of cl

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

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

5. Weigh Drum Assembly

RECORD weight information
- Tare wight (lbs) 762
- 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: BRIAN GALLEGOS Operator Sign: B. Gallegos ID#: 267129 Date: 6-14-13

Verifier Print: Brandon Chavez Verifier Sign: Brandon Chavez ID#: 201742 Date: 6-18-13

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

DRUM ID#: ~~93842~~ 93841 9/23/14

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: 9-11-13

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): 167.0

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] Jose Quintana Date: 6-18-13

Verifier Print/Sign: [illegible] Date: 6/18/13

3862447

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

Drum ID#: 93842

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 #: 0334765
- 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 #: CCPVC 15-25PVC
- Serial #: L-6808
- 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 #: 0193
- Serial #: KM 3541
- Date of Manufacture: 12

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:	+/- 40 in-lbs or +/- 5%	Tolerance:	+/- 5% or +/- 6" in-lbs

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Ian Marquez, Gerald Espinoza Signature: [signature] ZB: 236708, 237720

5. Weigh Drum Assembly

RECORD weight information
- Tare Wight (lbs) 76.2
- File ID #: 01905
- [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: Gerald Espinoza, Ian Marquez Operator Sign: [signature] ZB: 237720, 236708 Date: 6-11-13, 6-12-13

Verifier Print: Brandon Chavez Verifier Sign: [signature] ZB: 201712 Date: 6-18-13

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

DRUM ID#: 93842

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: 9-11-13

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

— Tolerance ±3% or ±6 in-lbs

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): 274.8

Scale ID#: 090625

√ 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: 6-18-13

Verifier Print/Sign: missing signature. [signature] Z# 167341 Date: 9/23/2014

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

Drum ID#: 93843

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 #: 02234765
- Date of Manufacture: 2013

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 #: Wave 15-2 SPVC
- Serial #: L-6817
- Date of Manufacture: 01/13

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 #: 01485
- Serial #: KM-531
- Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:
- MATE ID #: 100216
- Cal Expiration Date: 12-18-13
- Range (ft-lbs or in-lbs): 40-200
- Tolerance: +/-4% cw and +/-6% ccw

Jam Nut / Bung torque wrench:
- MATE 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 Belusek Signature: Kevin Belusek ZS: 238199

5. Weigh Drum Assembly

RECORD weight information
- Tare wight (lbs) 760
- File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Kevin Belusek Operator Sign: Kevin Belusek ZS: 238199 Date: 06/11/13
Verifier Print: Brandon Chavez Verifier Sign: [illegible] ZS: 204782 Date: 6-18-13

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

DRUM ID#: 98843

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: 9-11-13

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

-- Tolerance ±6% 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.): 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: 6-18-13

Verifier Print/Sign: [illegible] Date: 6-18-13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S813620 Container Type: 55-GAL Gross Weight (lbs): 408

Inner Seal #: 000479 Filter Prefix: None Filter Serial #: None

AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0100

TWSR Comments: LEACHED SOLIDS-YELLOW TAGGED

Total PE-Ci Activity: ~~0.00E+00~~ 1.85E+01 Equivalent Combustible PE-Ci: ~~0.00E+00~~ 6.99E+00 1.51.13 AM-241 PE-Ci: ~~0.00E+00~~ 1.79E+01 1.51.13

Total Fissile Gram Equivalents: ~~0.0~~ 0.8 1.31.13 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009 WE 12/11/12

NCR RTR/NDA Comment: LANL: remediate-4 GAL of liquid between 24 and 32 inches

RTR Pre-Screen Date: 7/31/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 26

Certified RTR Comment: 4 GAL of liquid between 24 and 32 inches

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: Nitrate Salts apply mixture & EPA codes

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: 348# Generator info shows 3 items of nitrate salts; weights range from 35-100#. RTR BDR shows plastic bags + homogenous solids as well as prohibited liquids + lead-lined drum. Nitrate salts require repack w/ admixture. They carry waste codes for chromium, lead, + mercury. No chemicals identified.

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 12/11/12 (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 proper ratio of kitty litter to waste, in accordance with procedure

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: USE Proper PPE

Performed By: G. Mitz (TRU Remediation Operations (Print)) / G. Mitz (Signature) / 148235 (Z Number) / 5/18/13 (Date)

Jose Jerez / Jose Jerez / 221452 / 5/18/13

IHS REVIEW: RB 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 000479

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS 368 FI	15.91	NITRATE SALTS		0	52	5/11	
2	DXFS 371 FI	37.27	NITRATE SALTS		0	52	5/11	
3	DXFS 373 FI	45.23	NITRATE SALTS		0	52	5/11	
		98.41 kg						

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0100
Examination Date:	9/18/2012
Waste Container ID:	S813620
Video/Audio Recorded Media Number:	LA-HERTR-12-0100 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-1642-12 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.: 190.5 kg Tare Wt.: 60.1 kg Net Wt.: 130.4 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: [X] No [ ] Yes Mechanical Vent: [ ] No [X] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [ ] No [X] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: S813620

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 and Rigid Liner/Lid	9.4
Other: Lead Lined (LP)	23.0
Total Packaging Weight	60.1
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):	128.4
Soils (S):	
Total WMP Weight:	130.4

CCP Radiography Data Sheet

Waste Container ID: S813620

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?	[X] Yes [ ] 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: NCR-LANL-1642-12 PER CCP-SO-LANL-55 INCONSISTENCIES ASSOCIATED WITH THESE PACKAGING CONFIGURATIONS (RIGID LINER WITH OR WITHOUT LID) WILL NOT DISQUALIFY THE CONTAINER FROM MEETING THE WASTE STREAM DESCRIPTION TJH 9-20-12

RTR Operator:		
	Thad Hasselstrom	9-20-12
Thad Hasselstrom	Thad Hasselstrom	9/18/2012
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Jan 29 2013

Container No. (5.[1])	98136 20					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A 1-30-13

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 1237975 (Z#)

Reviewed By: Nathan Wales (CCP (Print)) 1233516 (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#) 1-30-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130129c\
Data File : S813620.D
Acq On : 29 Jan 2013 2:18 pm (#1); 29 Jan 2013 2:17 pm (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 14:22:35 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Oct 04 08:07:46 2012
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 Tue Jan 29 14:22:59 2013 UNIT12

4-18-13
0600 Assuming WCRRF operations center - Okelande
0610 Starting inside and outside rounds.
0615 Pre job being conducted by SOS
0619 Item #4 Unsat, Per CSE okay to proceed.
0627 Item #43 is OOS, POD in place, Okay to proceed.
0630 Completed outside rounds.
0635 Completed inside rounds.
0653 Rounds signed off by SOS.
0722 mode change performed TASD-69 and WCRRF now in operation
0740 Starting movement out of SD-69.
0751 Bagging on S813620
0758 Completed movement out of SD-69.
0801 Starting staging of drums for shipment to area G.
0802 Bag on complete
0836 Bagging off 1 daughter, Bagging on another, continue to process drum.
0850 Permission granted to lower vehicle access gates for shipment to area g.
0900 PPE Check is sat.
0933 vehicle access gates have been restored movement to transport vehicle is complete.
1012 Bagging off daughter, bagging on daughter
1150 Bagging off, Bagging on 9811872
1253 late entry at 1230 Bag off complete.
1449 Bagging off 1 daughter.
1510 Bag on complete, Bag off complete
1532 Starting outside rounds
1535 Starting inside rounds
1539 Item #3 is unsat, FSR in place okay to proceed.
1549 Completed outside rounds.
1551 Item #43 is OOS, POD in place ok to proceed.
1600 Inside rounds complete.
1637 Starting movement into SD-69.
1659 movement into SD-69 complete.
1708 Starting movement out of SD-69
- Continued on next page - Okelande

6-18-13 Continued from previous page cicled

1720 movement out of 5069 complete.

1733 Starting bag off of 3811872

1746 bag off complete.

1808 TAS 69 and WCRLF yard now warm standby.

6-18-13 1830 End of day WCLF operations watch secure cleland

No further entries this page

PROJECT NAME 6.18.13 NOTEBOOK NO.

0600 Assumed the WCRR SOM position. [signature]
0612 Turned over the SOM duties u/I to J. Guddagnoli. [signature]
0612 Assumed the SOM duties u/I from Guddagnoli.
0633 Completed attending the pre-job conducted by the SOS (Jose).
The safety topic discussed was the use of safety glasses when using Loctite
There is one scheduled transfer to Area G of 21 drums going out
The SOS discussed roles and responsibilities and station 7 - left and right hand require changing. The SOS focused on taking time changing gloves, ensure there is no gap with the expanders, and ensure no contamination.
The SOS reviewed shift order requirements, and oversight when sliding drums off of the lift table and scale. The SOM reviewed item 3 on Rounds being unsat with weeds greater than 18", this is not a $ step, and comments are on Round sheets [initials] u/I
0700 Call into TA54 SOM daily brief [initials] u/I
0709 SOS reported that glove changes are not required at this time, further evaluation will be conducted [initials] u/I
0722 Mode Change complete, WCRR YARD / 50-69 from WARM/WARM to Operations/Operational [initials]
[signature]
0802 1st Bag On completed, for parent drum S8136-20 [initials] u/I
0950 Drum transfers from the Transportainer to the transfer vehicle were completed. Twenty one drums total. ES/IH were present in the field and observed the movements - safe and compliant, the transfer was noted as exclusive use by P&T. [initials] u/I
1200 Conducted LEL call in with support personnel - No Issues noted [initials] u/I
1220 Completed daily facility update with SOM and PM. No Issues noted [initials] u/I
1257 Conducted debrief with DOE/FR and SOM. Items noted as needing follow up by SOS and ES/IH are 3 ladders, two of the three do not have annual inspection stickers. ES/IH will follow up. Also several Operators Aids and postings were checked in the field as a result, Posting 015 requires removal, Operator Aid 50-10-01 requires Rev 24 replaced with Rev 25. and ~~Posting~~ 6.18.13 Operator Aid 50-10-05 requires updating with version in logbook - Operator Aid. Notification was made to the OCD and SOS for correcting. [initials] u/I
1506 Operations reported correcting the Operator Aid items identified at 1257 hrs, however could not locate Posting #015. DOE/FR was notified and she will review her notes [initials] u/I
1600 All rounds were completed inside and outside - [initials] u/I.
1808 Mode Change complete WCRRF YARD and 50-69 Operational/Operational to WARM/WARM. Operations processed 2 parents, generating 5 daughters and 1 POC [initials] u/I
1823 Securing the SOM duties. [signature] [initials] u/I

No Further Entries this page [initials] u/I

SIGNATURE [signature] [initials] u/I DATE 6.18 2013
READ AND UNDERSTOOD DATE 20

WCRR SOS Log Book

6/18/13

0600 Assuming SOS position for the day. Jan Jy

0615 Starting Pre-Job. Safety Topic, discussing the use of Lock Tite ensuring that Operators use Nitrile Gloves and Safety Glasses IWD for lock tite identifies this, IWD for Preping daughters does not, this IWD needs to be changed. Gloves on Station 7 needing to be changed. Processing parents, have one shipment out today. DOE on-site and will be inside of the processing facility to watch procedure use and operations. Also discussed 30/30 for lightning. If you are in the yard and see lightning and hear thunder. Stop operations, place everything in a safe configuration, take shelter and notify Operations Center.

0640 Concluded Pre-Job brief.

0653 Reviewed and signed rounds.

0712 Mode change complete WCRR yard and 50-69 are in Operations.

0756 Bag on of first Parent drum complete.

0836 Bagging off one daughter, bagging on second daughter, continuing to process first Parent

1012 Bagging off second daughter, bagging on third daughter. Continuing to process first Parent.

1144 Bagging off 1 POC and 3 daughters, Bagging on second parent

1230 Bag off complete

1449 Bagging off one daughter

1510 Bag on Bag off complete

1617 Reviewed and signed off on rounds

1733 Bagging off last drum for the day.

6-18-13 1746 Bag off Complete, Operators stating that station 7 needs to be changed, station 8 left hand needs to be watched. Plastic on the floor in the exclusion area needs to be changed out, Roto Grip is tearing through it.

1808 Mode change complete WCRR yard and 50-69 are in WARM.

1820 Securing SOS position for the day. Jan Jy

U/I

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-RTR2-13-0087
Examination Date:	6/24/2013
Waste Container ID:	93841
Video/Audio Recorded Media Number:	LA-RTR2-13-0087 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.: 76.0 kg Tare Wt.: 33.4 kg Net Wt.: 42.6 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: 93841

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal
AM:	
OM:	
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):	1.0
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):	35.6
Soils (S):	
Total WMP Weight:	42.6

CCP Radiography Data Sheet

Waste Container ID: 93841

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:

Print Name	Signature	Date
Benito Maestas	B. Maestas	6/24/2013

NDA 2000 Assay Report

Item Information

Item ID:	93841	Count Sequence Number:	23085
Operator:	D3PW2DK1\operator		
Assay Start:	6/25/2013 10:00:59 AM		
Description 1:	1LANDA1797		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 42.6 kg	Net:	42.6 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.340 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:	23085	Batch Number:	1LANDA1797
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93841	Analysis Date:	6/25/2013

Net Weight	42600.0 g		
Pu mass	9.61E-001	+-	3.06E-001 g
TRU Alpha Activity	7.91E-001	+-	3.79E-001 Ci
TRU Activity Concentration	1.86E+004	+-	8.90E+003 nCi/g
Pu-239 Equivalent Activity	7.93E-001	+-	3.79E-001 Ci
Pu-239 FGE	9.10E-001	+-	2.87E-001 g
Decay heat	2.63E-002	+-	1.27E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.29E-002	9.22E-006	1.17E-006	7.26E-007
PU238	8.81E-005	1.52E-003	4.85E-004	3.42E-005
PU239	9.02E-001	5.67E-002	1.81E-002	1.27E-003
PU240	5.77E-002	1.33E-002	4.22E-003	2.97E-004
AM241	2.07E-001	7.20E-001	3.79E-001	1.51E-002
PU241	1.12E-003	1.17E-001	3.71E-002	2.62E-003
PU242	1.92E-004	7.64E-007	2.43E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.09E-007
U233	<LLD	<LLD	0.00E+000	1.36E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.90E-007
U238	<LLD	<LLD	0.00E+000	3.64E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 7/1/13

ITR: [illegible] Date: 7-9-13

Automated Independent Technical Review

Count Sequence Number: 23085 Batch Number: 1LANDA1797
Counter ID: MCS HENC #1
Container ID: 93841
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/25/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	OK
Cosmic Ray Rejection Analysis complete with warnings. - The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	OK
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. 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.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 7/1/13

013

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93841**

BDR Number: **LA13FG12057**

Sampling Date: **7/2/2013**

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	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\130702c\
Data File : 93841.D
Acq On : 2 Jul 2013 12:20 pm (#1); 2 Jul 2013 12:18 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 02 12:25:00 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

(#) = 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-RTR2-13-0087
Examination Date:	6/24/2013
Waste Container ID:	93842
Video/Audio Recorded Media Number:	LA-RTR2-13-0087 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.: 125.0 kg Tare Wt.: 33.4 kg Net Wt.: 91.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 93842

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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	82.6
Soils (S):	
Total WMP Weight:	91.6

CCP Radiography Data Sheet

Waste Container ID: 93842

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		6/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93842	Count Sequence Number:	23107
Operator:	D3PW2DK1\operator		
Assay Start:	6/27/2013 12:33:58 PM		
Description 1:	1LANDA1799		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 91.6 kg	Net:	91.6 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.590 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:	23107	Batch Number:	1LANDA1799
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93842	Analysis Date:	6/27/2013

Net Weight	91600.0 g			
Pu mass	1.11E+000	+-	2.04E-001	g
TRU Alpha Activity	1.73E+000	+-	2.82E-001	Ci
TRU Activity Concentration	1.89E+004	+-	3.08E+003	nCi/g
Pu-239 Equivalent Activity	1.73E+000	+-	2.82E-001	Ci
Pu-239 FGE	1.06E+000	+-	2.03E-001	g
Decay heat	5.76E-002	+-	9.41E-003	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	9.41E-011	1.07E-007	2.39E-008	5.10E-008
SR90	7.37E-009	1.02E-006	4.15E-007	0.00E+000
CS137	1.16E-008	1.02E-006	4.15E-007	4.03E-007
U233	<LLD	<LLD	0.00E+000	2.78E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.26E-007
NP237	3.24E-002	2.31E-005	3.89E-006	1.41E-006
PU238	1.02E-004	1.77E-003	4.11E-004	4.77E-004
U238	<LLD	<LLD	0.00E+000	7.27E-006
PU239	1.05E+000	6.58E-002	1.28E-002	1.78E-002
PU240	6.69E-002	1.54E-002	3.69E-003	4.15E-003
AM241	4.74E-001	1.65E+000	2.81E-001	3.15E-002
PU241	1.30E-003	1.35E-001	3.25E-002	3.65E-002
PU242	2.23E-004	8.85E-007	2.13E-007	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-9-13

ITR: _____ Date: 7-9-2013

Automated Independent Technical Review

Count Sequence Number: 23107 Batch Number: 1LANDA1799
Counter ID: MCS HENC #1
Container ID: 93842
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/27/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. 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: Sheri Chamberlin Date: 7-2-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93842**

BDR Number: **LA13FG12056**

Sampling Date: **6/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	33.78	
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\130628c\
Data File : 93842.D
Acq On : 28 Jun 2013 10:09 am (#1); 28 Jun 2013 10:08 am (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 28 10:14:14 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	9636m	33.78	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-RTR2-13-0087
Examination Date:	6/24/2013
Waste Container ID:	93843
Video/Audio Recorded Media Number:	LA-RTR2-13-0087 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.: 128.0 kg Tare Wt.: 33.4 kg Net Wt.: 94.6 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: 93843

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):	15.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	75.6
Soils (S):	
Total WMP Weight:	94.6

CCP Radiography Data Sheet

Waste Container ID: 93843

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		6/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93843	Count Sequence Number:	23086
Operator:	D3PW2DK1\operator		
Assay Start:	6/25/2013 10:47:17 AM		
Description 1:	1LANDA1797		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 94.6 kg	Net:	94.6 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.760 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:	23086	Batch Number:	1LANDA1797
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93843	Analysis Date:	6/25/2013

Net Weight	94600.0 g		
Pu mass	4.50E+000	+-	1.87E+000 g
TRU Alpha Activity	4.29E+000	+-	2.17E+000 Ci
TRU Activity Concentration	4.54E+004	+-	2.29E+004 nCi/g
Pu-239 Equivalent Activity	4.30E+000	+-	2.17E+000 Ci
Pu-239 FGE	4.26E+000	+-	1.76E+000 g
Decay heat	1.43E-001	+-	7.24E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.63E-002	4.02E-005	7.84E-006	2.11E-006
PU238	4.12E-004	7.13E-003	2.97E-003	3.42E-005
PU239	4.22E+000	2.66E-001	1.10E-001	1.27E-003
PU240	2.70E-001	6.21E-002	2.58E-002	2.97E-004
AM241	1.14E+000	3.96E+000	2.16E+000	4.03E-002
PU241	5.26E-003	5.46E-001	2.27E-001	2.62E-003
PU242	9.01E-004	3.58E-006	1.49E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.29E-007
U233	<LLD	<LLD	0.00E+000	3.99E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.13E-006
U238	<LLD	<LLD	0.00E+000	1.23E-005

Errors quoted at 1.000 sigma

Operator: Ann Barton Date: 7/1/13

ITR: Brit Tupitt Date: 7-9-13

Automated Independent Technical Review

Count Sequence Number: 23086 Batch Number: 1LANDA1797
Counter ID: MCS HENC #1
Container ID: 93843
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/25/2013

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

Expert Review by: _____ Date: 7/1/13

Waste Container ID: **93843**

BDR Number: **LA13FG12056**

Sampling Date: **6/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	112.74	
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\130628c\
Data File : 93843.D
Acq On : 28 Jun 2013 2:17 pm (#1); 28 Jun 2013 2:15 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: Jun 28 14:21:09 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	32158m	112.74	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-HERTR-13-0076
Examination Date:	6/25/2013
Waste Container ID:	93844
Video/Audio Recorded Media Number:	LA-HERTR-13-0076 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 165.5 kg Tare Wt.: 145.1 kg Net Wt.: 20.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 93844

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	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):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	15.4
Soils (S):	
Total WMP Weight:	20.4

CCP Radiography Data Sheet

Waste Container ID: 93844

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	6/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93844	Count Sequence Number:	23101
Operator:	D3PW2DK1\operator		
Assay Start:	6/26/2013 3:16:53 PM		
Description 1:	1LANDA1798		
Description 2:	POC-Gross Wt.= 165.5		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 20.4 kg	Net:	20.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.697 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:	23101	Batch Number:	1LANDA1798
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93844	Analysis Date:	6/26/2013

Net Weight	20400.0 g		
Pu mass	1.49E+000	+-	1.35E+000 g
TRU Alpha Activity	1.86E+000	+-	1.21E+000 Ci
TRU Activity Concentration	9.11E+004	+-	5.92E+004 nCi/g
Pu-239 Equivalent Activity	1.86E+000	+-	1.21E+000 Ci
Pu-239 FGE	1.41E+000	+-	1.26E+000 g
Decay heat	6.19E-002	+-	4.03E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.30E-002	1.64E-005	3.07E-006	1.53E-006
PU238	1.36E-004	2.36E-003	2.14E-003	3.44E-005
PU239	1.40E+000	8.79E-002	7.95E-002	1.28E-003
PU240	8.94E-002	2.05E-002	1.86E-002	2.99E-004
AM241	5.04E-001	1.75E+000	1.21E+000	8.79E-002
PU241	1.74E-003	1.81E-001	1.64E-001	2.63E-003
PU242	2.98E-004	1.18E-006	1.07E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.61E-007
U233	<LLD	<LLD	0.00E+000	2.88E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.15E-007
U238	<LLD	<LLD	0.00E+000	9.44E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-9-2013

ITR: _____ Date: 7-9-13

U24

Automated Independent Technical Review

Count Sequence Number: 23101 Batch Number: 1LANDA1798
Counter ID: MCS HENC #1
Container ID: 93844
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/26/2013

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.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Fiducial nuclide not identified.	Pu239 peaks fitted but <MDA.
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
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Clearwater Date: 7-1-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93844**

BDR Number: **LA13FG12056**

Sampling Date: **6/28/2013**

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	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\130628c\
Data File : 93844.D
Acq On : 28 Jun 2013 2:09 pm (#1); 28 Jun 2013 2:07 pm (#2)
Operator : SA
Sample :
Misc : POC THROUGH DRUM FILTER, NucFil-019DS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 28 14:17:01 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

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

30

S816304

S816304

Container Profile 771827

File Options Reports Help

S816304

771827	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

S816304
- S816304
  - 94008
  - 94007
  - 94009 – EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.0010445	%			

Working Copy
Date: 07/11/13 KB

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816304

6.2[4] Date Processed: 7-12-13

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

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

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

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

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

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

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

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

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

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

Performed By: Brian Gallegos / [signature] / 2671229 7-12-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5816304

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 463.4 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) 463.4 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.: 3816304

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94007	94008		
10.1[4]	Daughter Drum Filter No.	KL-651	KM-506	N	
10.1[4]	Daughter Drum Bag Filter No.	L-8152	L-6883	A	
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	2 GALLONS	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		
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%	50%		
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.: 5816304

Comments: ROOM TRASH, PLASTICS, 2 GALLONS OF ACID WHICH WAS NOT ABLE TO BE NEAUTRALIZED BUT WAS SOLIDIFIED, NITRATE SALTS, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 2071229 7-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Perez / [signature] / 1221452 / 7/18/13 0500
SOS or designee (print) / Signature Z # Date/Time

Working Copy
Date: 6-28-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
Manufacture Date: 12

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

	Filtered Vent	2-in. Bung
M&TE No.:	1002116	0383169
Cal. Expiration Date:	12.18.13	12.18.13
Tolerance:	40-200	10-80

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-18603
Manufacture Date: 10-11

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

5. [11] Performed By: Gerald Espinoza / [signature] / 1237120 / 6-28-13
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] / 1237120 / 6-28-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Joe Jerez / [signature] / 221452 / 7/18/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 07/11/13 KB

UET

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: ~~94010~~ 94009 (B2) 9/23/2014

7.[24] Overpack drum closure ring torque wrench information:
- M&TE No.: 038373
- Cal. Expiration Date: 4-11-13
- 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 / B. Gallegos / 267129
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: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 190.6 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Gallegos / 267129 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / Jose Jerez / 221452 / 7-18-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 94007

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 #: 013766
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-15-25PVC
Serial #: L-8152
Date of Manufacture: 3-13

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-651
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:	12-15-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% cal ±6% rdg	Tolerance:	±3% cal ±6% rdg

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Justin Lopez Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 75.8
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Justin Lopez Operator Sign: [signature] Z#: 266436 Date: 7-10-13
Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: 2071279 Date: 7-11-13

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

DRUM ID#: 94007

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 # : 038573

Cal expiration date: 9-11-13

7-11-13 BG ~~±3% cw ±6% ccw~~ 10-80

Range/ Value (ft-lbs):

--- 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): 356.4

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 7-11-13

Verifier Print/Sign: [illegible] Date: 7-11-13

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

Drum ID#: 94008

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 #: 223 4765
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: Bor
Model #: 3.0PE 1.5-25 PE
Serial #: L-6883
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: MILLFIL
Model #: 019D5
Serial #: KM-506
Date of Manufacture: 11-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	058369
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% 4.6 lbs	Tolerance:	+/- 3% 4.6 lbs

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

[x] Yes [ ] No

Print Name: JAN MARQUEZ Signature: [signature] Z#: 276708

5. Weigh Drum Assembly

RECORD weight information

Tare witght (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: Jan Marquez Operator Sign: [signature] Z#: 276708 Date: 7-1-16

Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: 267129 Date: 7-11-10

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

DRUM ID#: 94008

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: 9-11-13

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): 242.4

Scale ID#: D19065

✓ 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: 7-11-13

Verifier Print/Sign: [illegible] Date: 7-11-13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816304 Container Type: 55-GAL Gross Weight (lbs): 469
Inner Seal #: 000371 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS-YELLOW TAGGED
Total PE-Ci Activity: 1.89E+00 Equivalent Combustible PE-Ci: 7.10E-01 AM-241 PE-Ci: 1.54E-01
Total Fissile Gram Equivalents: 20.9 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 WR 12/11/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 3/15/2012 Comment: Lead Liner, Liquid 18"
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: Nitrate Salt, apply mixture & EPA codes WR 11/29/12

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. 409# Generator info shows 3 items of nitrate salts, weights range from 6-199#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags + can contain undocumented liquids. RTR PS shows presence of liquids + lead lined drum. 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 Proper PPE, Use proper ratio of kitty litter to Nitrate Salts in accordance with the procedure.
Performed By: G Mtr (TRU Remediation Operations (Print)) / [signature] (Signature) / 1149235 (Z Number) / 6-2-13 (Date)
Joe Jerez (Signature) / 221452 / 6-9-13

IHS REVIEW AB 246362 12.17.12

Discardable Waste Log Sheet

DrumID: 000371

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS-378-F1	2.84	NITRATE SALTS		0	53	5/11	
2	DXFS-379-F1	49.09	NITRATE SALTS		12.1	52	5/11	
3	DXFS-380-FA	90.45	NITRATE SALTS		10.1	52	5/11	
		142.38 kg						

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Feb 21 2013

Container No. (5.[1])	9816304					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	91.13 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Nathan Wales (CCP (Print)) 1238666 (Z#)

Reviewed By: Sara Aragon (CCP (Print)) 1237975 (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) 1176905 (Z#) 2.21.13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130221c\
Data File : S816304.D
Acq On : 21 Feb 2013 2:51 pm (#1); 21 Feb 2013 2:49 pm (#2)
Operator : NW
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 21 14:55:27 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Feb 21 08:46:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.930	GC1	25993m	91.13	ppmv	

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

H2-CH4.M Thu Feb 21 14:55:42 2013 UNIT12

7-11-13
0600 Assuming WCLF operations center. CDLande
0612 Rounds have been signed off by SOS.
0618 The job being conducted by SOS.
0800 Starting movement out of 50 69
0804 Bagging on 9816394.
0813 Bag on complete.
0819 Permission granted to lower vehicle access gates for movement to area G.
0854 Vehicle access gates have been restored movement to area G complete.
0855 Operator exiting 50 69. He is feeling ~~nauseous~~. CV 7-11-13 nauseous. SOS has been notified and IH will be ~~elevated~~. CV 7-11-13 evaluating operator.
1025 Bagging off 9816394, Bagging on 9816305
1052 Bag on, Bag off complete.
1124 Permission granted to lower vehicle access barriers for unloading of transport vehicle.
1330 Bagging off, Bagging on 9816304
1353 Bag on Bag off complete.
1510 Starting outside rounds.
1516 Item #3 is unsat FSR in place OK to proceed.
1522 Bagging off (daughter)
1523 Starting inside rounds
1527 Outside rounds complete
1550 At 1500 notified by SOM that he has bumped his outside in the parking lot letting EP-WCLF-PM-EP 209. RCTs, SOS and DOE were notified and OM has transported him to OCmed.
1617 Bagging off, Bagging on 9816342
1631 Rounds have been signed off by SOS.
1650 notified by operator of WCG high high pressure FE-002 close, and HVA-001
1652 mizer alarm acknowledged, suspend operations operators following RCT instructions
1656 another mizer alarm acknowledged.
—Continued on next page—CMelande

Continued from previous page Avelonde.

1658 SOS, SOM, OM, FOD acknowledged entering EP-6 CRR ARP-0411, 405, 408, 409. and entering LCO 3.3.1 and ~~3.3.6~~ CO7-11-13 3.3.2 and 3.0.1

1701 Emte contacted and asking about any power bumps.

1703 power dispatch contacted no power outages.

1705 Generator did not kick on. OSE has been notified ok to turn back on.

1740 Operators entering to restart ventilation.

1744 Ventilation has been restarted.

1746 Ventilation start up failure.

1751 Ventilation has been restarted.

1803 Ventilation readings are normal.

1815 performed shift turnover with OCC, Terri Coleman.

Avelonde

A further entries this page.

PROJECT NAME 7-11-13 DAYSHIFT NOTEBOOK NO.

0614 Reviewed the shift turnover checklist, reviewed approved and posted incoming watchbill. Completed turnover with Nightshift SOM and assumed the WCRR SOM position [illegible]

0640 Completed attending the pre-job brief conducted by (Gilbert) the SOS. Issues identified by the team include: Operators complained of heat in the back area especially when wearing lead vests. Requested the temperature to be lowered - even 1-2 degrees, the dose rate on the SF-57 Nitrate Salts are high, Time, distance and shielding was discussed. EPD requirements discussed The team is low on Kev-Armor sleeves, it was suggested Tyvex sleeves be used over the gauntlets. Shift Order WCRR-SH-13-003 R2 - Manual Drum Movements is still in effect. One transfer out is scheduled to AREA G.

0710 Completed daily FOD conference call in

0745 DOE/FR and DOE facility representative (JF) arrive to perform assessment of 50-69 floor drains

0801 Upon performing a move out of 7 drums from inside the facility, operations bagged on S816394

0845 DOE exited the operations center and their concern was in their opinion the drains require cleaning and the truck bay floor drain looks clogged.

0846 Late Entry for 0820 One operator reported nausea after opening plastic new bag on bags, Notification was made to the ES/IH, operator is sitting in fresh air and ES/IH is monitoring.

0856 The transfer out of 12 drums to AREA G is completed. No issues noted. Upon review of the transfer in, one SEDs document was missing for drum 93752 - Notification was made to Production Control, they are acquiring SEDs.

0922 Notification was made to the Operations Center by F&T that drum S846084 was being dropped.

1011 With EWMO support the SOM - conducted walkdown of portable light in the parking lot at WCRR; the diesel fuel was dripping onto the catch pan - Notification was made to Craft supervision to change out and replace the catch pan. The OCO was also notified.

1025 Operations initiated bagging off S816394 and bagging on S816305

1052 Bag on and off were reported completed

1215 Completed the daily facility update to the PM/OM.

1305 The crafts repaired the diesel generator leak on the light power plant, they requested laborers to replace the catch pan and kitty litter.

1312 The nauseated operator was reported to be feeling better and the SOS on ES/IH declared him ready and fit for duty. He entered 50-69 to support operations.

1450 SOM notified OM that the SOM bumped his forehead in the parking lot outside controlled area, noted as 1st AID notification made to OM.

1500 OCO entered EPWCRR-RM-EAP-0209, RCTs SOS and DOE were notified. SOM exiting to OCC Med with OM for First AID - bandage

1650 Notified by operator/SOS of WCG high high Pressure FE-002 flow and HVX-001

1652 Mizer Blum acknowledged / SOM + OM suspend operations and 7-11-13 following operations following RCT instructions,

1658 The SOS, SOM, OM, FOD + DOE were all notified, also entered EP-WCRR-ARP-0411, 405, 408, 409 and entering LCO 3.3.1 and 3.3.2 and 3.0.

SIGNATURE (Continued on Next Page) DATE 20

READ AND UNDERSTOOD no further entries this page DATE 20

PROJECT NAME 7-11-13 DAY SHIFT Continued NOTEBOOK NO.

1701 EM&R Contacted and did not know of any power bumps
1703 Power dispatch contacted and did not know of any power bumps
1705 Generator did not kick on, and CSE was contacted.
1740 Operators entered to restart Ventilation.
1744 Ventilation was restarted
1745 Inside Operator indicates Ventilation start up failure
1751 Ventilation has been restarted.
1803 All Ventilation readings are normal, Existing LCOs.
1815 Conducted shift brief turnover with incoming SOM Nightshift
1818 The nightshift SOM completed signing off the watchbill.
1820 It was discussed by OM, RP-1, SOM, and CSE, that potentially the filters require changing in the WCG glovebox, this will be scheduled Monday AM.
1825 Secured the SOM position for Day shift [illegible]

CJ 7-12-13

No further Entries this Page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

7/11/13 WCRR SOS LOG BOOK

0600 Assuming SOS position.

0615 Conducting shift brief talked about heat inside and staying Hydrated

0635 shift brief Complete

0645 Operators entering Facility.

0800 starting movement out of 50-69

0804 bagging on 5816394

0813 Bag off/on complete

0819 Operators Lowering access gates

0834 movement complete

0855 Operator exiting 50-69 He is Feeling Ill IH will evaluate operator.

1025 Bagging off 5816394 Bagging on 5816305

1052 Bag on/off Complete

1125 Lowering access gates for unloading transport vehicle.

1330 Bagging off bagging on 5816304

1333 Bag off/on Complete

1510 Starting Rounds.

1512 bagging off daughter.

1550 Late entry At 1500 notified sum bumped his head entered EP WCRR-EOP-209 sum transported to clinic

1607 Bagging off bagging on 5816342

1631 Reviewed Inside And outside Rounds.

1650 ~~Operators~~ Gen 7-11-13 operators Inside Notified of WCB high high pressure FE-002 low and HPA-001

1652 mixer Alarm acknowledged Suspended operations, operators following RCT Instruction.

1656 ~~Breathe~~ mixer Acknowledged

1658 entering EP-WCRR-AKP-0411, 405, 408, 409 and entering LCO 3.3.1 And 3.3.2 And 3.3.0

1740 operators Rentering to restart ventilation

1744 Ventilation Restarted.

1746 Ventilation Start up failure

1751 Ventilation restarted.

1803 Ventilation numbers normal

1920 Sos turn over with clayton Mullins

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94007
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 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.: 161.5 kg Tare Wt.: 33.4 kg Net Wt.: 128.1 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: 94007

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hand tool

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):	0.2
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	118.4
Soils (S):	
Total WMP Weight:	128.1

CCP Radiography Data Sheet

Waste Container ID: 94007

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		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94007	Count Sequence Number:	16187
Operator:	DCLTD231\Operator		
Assay Start:	7/17/2013 1:05:27 PM		
Description 1:	2LANDA1195		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 128.0 kg	Net:	128.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.680 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:	16187	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94007	Analysis Date:	7/17/2013

Net Weight	128000.0 g		
Pu mass	1.39E+001	+-	3.30E+000 g
TRU Alpha Activity	1.17E+000	+-	2.03E-001 Ci
TRU Activity Concentration	9.14E+003	+-	1.58E+003 nCi/g
Pu-239 Equivalent Activity	1.20E+000	+-	2.03E-001 Ci
Pu-239 FGE	1.31E+001	+-	3.10E+000 g
Decay heat	3.67E-002	+-	6.30E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.39E-002	5.28E-005	9.61E-006	2.58E-006
PU238	1.27E-003	2.20E-002	5.23E-003	3.59E-005
PU239	1.30E+001	8.21E-001	1.95E-001	1.34E-003
PU240	8.34E-001	1.92E-001	4.55E-002	3.12E-004
AM241	3.89E-002	1.35E-001	3.21E-002	2.20E-004
PU241	1.62E-002	1.68E+000	4.00E-001	2.74E-003
PU242	2.78E-003	1.10E-005	2.62E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.43E-007
U233	<LLD	<LLD	0.00E+000	4.79E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.57E-006
U238	<LLD	<LLD	0.00E+000	1.18E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-19-13

ITR: [illegible] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16187 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94007
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

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

Expert Review by: Sherri Chambers Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94007**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	118.66	
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\130718c\
Data File : 94007.D
Acq On : 18 Jul 2013 2:04 pm (#1); 18 Jul 2013 2:03 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: Jul 18 15:29:31 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	1.900	GC1	33848m	118.66	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-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94008
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 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.: 110.0 kg Tare Wt.: 33.4 kg Net Wt.: 76.6 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: 94008

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):	18.4
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	54.2
Soils (S):	
Total WMP Weight:	76.6

CCP Radiography Data Sheet

Waste Container ID: 94008

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		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94008	Count Sequence Number:	16196
Operator:	DCLTD231\Operator		
Assay Start:	7/18/2013 11:31:55 AM		
Description 1:	2LANDA1196		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 76.6 kg	Net:	76.6 kg
Container:	Volume: 208.0 l	Full:	40.0 %
Density:	0.920 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: 16196
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 94008

Batch Number: 2LANDA1196
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/18/2013

Net Weight	76600.0 g			
Pu mass	7.40E+000	+-	1.66E+000	g
TRU Alpha Activity	2.70E+000	+-	1.20E+000	Ci
TRU Activity Concentration	3.52E+004	+-	1.56E+004	nCi/g
Pu-239 Equivalent Activity	2.72E+000	+-	1.20E+000	Ci
Pu-239 FGE	6.98E+000	+-	1.66E+000	g
Decay heat	8.89E-002	+-	4.00E-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	3.62E-007
U233	<LLD	<LLD	0.00E+000	3.67E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.18E-006
NP237	4.32E-002	3.09E-005	6.74E-006	2.01E-006
PU238	6.78E-004	1.17E-002	3.25E-003	4.32E-004
U238	<LLD	<LLD	0.00E+000	9.34E-006
PU239	6.94E+000	4.37E-001	1.04E-001	1.61E-002
PU240	4.44E-001	1.02E-001	2.83E-002	3.76E-003
AM241	6.19E-001	2.15E+000	1.19E+000	2.92E-002
PU241	8.62E-003	8.96E-001	2.49E-001	3.30E-002
PU242	1.48E-003	5.88E-006	1.63E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-22-13

ITR: _____ Date: 7-23-2013

Automated Independent Technical Review

Count Sequence Number: 16196 Batch Number: 2LANDA1196
Counter ID: HENC #2
Container ID: 94008
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/18/2013

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. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
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: 7-22-13

Waste Container ID: **94008**

BDR Number: **LA13FG12065**

Sampling Date: **7/19/2013**

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	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\130719c\
Data File : 94008.D
Acq On : 19 Jul 2013 1:37 pm (#1); 19 Jul 2013 1:35 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 19 13:43:43 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

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

H2-CH4.M Fri Jul 19 14:04:00 2013 UNIT12

S816342

S816342

Container Profile 758202

File Options Reports Help

S816342

758202	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

S816342

- S816342
  - 94015 – EMPTY
  - 94014
  - 94013
  - 94012
  - 94011
  - 94010
    - 94017 – EMPTY
    - 94016

Task History

Transfer Details

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

Working Copy
Date: 7-11-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S816342

6.2[4] Date Processed: 7-11-13

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

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

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

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

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

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

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

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

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

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

Performed By: BRIAN GALLEGOS / [signature] / 2107124 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5816342

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 535.2 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) 535.2 lb

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

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 581634 2

		Daughter Drums	94013 Ge 7-30-13	94014 Ge 7-30-13	
10.1[4]/10.2[4]	Daughter Drum No.	94010	94014	94012	
10.1[4]	Daughter Drum Filter No.	KL-648	KL 643	KL-649	N/A
10.1[4]	Daughter Drum Bag Filter No.	L-8143	L-8138	L-8009	
10.1[4]	Daughter Drum Purchase Order No.	501103	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	BOP	BOP		
	Model No.	3cpv1.5-2spvc	3cpv1.5-2spvc		
	Serial No.	L-6911	L-8004		
	Date of Manufacture	1-13	1-13		
10.2[5]	POC ID No	D-24104/94011	D-24105/94012	N/A	
10.2[7][B]/10.2[6]	POC Item Description	Nitrate Salts	Nitrate Salts		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	GE 237720	GE 237720		
10.2[14]	POC Assembly Gross Weight (lb)	379.6	364.2		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000.5	900.5		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	NA	NA	NA	N/A
10.3[5][A]	Free Liquid Volume/Units	2 GAL	2 GAL	2 GAL	
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead	lead	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	SEE COMMENTS	SEE COMMENTS	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	20%	80%	70%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic quantities	Plastic	PLASTIC	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5816342

Comments: Nitrate Salts, Kitty litter, lead Shielding, Plastic,

11.1[1] Performed By: Gerald Espinoza / [signature] / 1237720 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Perez / [signature] / 1221452 / 8-14-13 2130
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 7-11-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415251
Lot No.: 0220446
Manufacture Date: 11

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%cw	±3%cw ±6%cw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: JM 7-10-13 019DS
Serial No.: FK-1145
Manufacture Date: 6-10

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

5. [11] Performed By: Jan Morrow [signature] 124724 7-11-13
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/A

8.1[1] Performed By: Jan Morrow [signature] 124724 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins [signature] 124002 7/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94015

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: Gerald Espinoza / [signature] / 237720 / 7-11-13
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: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 175.4 lb

Comments: N/c

8.1[1] Performed By: Gerald Espinoza / [signature] / 237720 / 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: GMh / [signature] / 149355 / 7/16/13
Supervisor or designee (print) Signature Z # Date

#4A

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

Drum ID#: 94010

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 #: 501163
Lot #: 0234766
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 #: 6PAC-15-2SPVC
Serial #: L-8143
Date of Manufacture: 3-13

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 #: 01905
Serial #: KL-648
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:	±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: Justin Lopez Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 76.0
File ID #: 019D65

- [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] Z#: 266436 Date: 7-10-13

Verifier Print: Gerald Espinoza Verifier Sign: [signature] Z#: 237720 Date: 7.11.13

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

DRUM ID#: 94010

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 #: 038873

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): 30-80

— 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): 105.6

Scale ID#: 09005

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

4. FINALIZE DOCUMENTATION

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

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

✓Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date: 7/12/13

Verifier Print/Sign: Kevin Borowiak Date: 07/12/13

#4D

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

Drum ID#: 94013

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 #: 0034766
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-8138
Date of Manufacture: 3-13

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: NuCFI
Model #: 019DS
Serial #: KL-643
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%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: Justin Cofer Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information
Tare wight (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: Justin Cofer Operator Sign: [signature] Z#: 266436 Date: 7-10-13
Verifier Print: Gerald Espinoza Verifier Sign: [signature] Z#: 237720 Date: 7.11.13

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

DRUM ID#: 94013

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: 9.11.13

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) 313.6

Scale ID#: 019905

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

4. FINALIZE DOCUMENTATION

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

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

✓Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date 7.12.13

Verifier Print/Sign: Kevin Belusak Date: 07/12/13

#4E

Preparing and Closing 55-Gallon Daughter Drum Assemblies

Working Copy
Date: 7-10-13

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#: 94044

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 #: 0134766
Date of Manufacture: 2-12

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 #: 6CPUC-1.5-23PVC
Serial #: L-8009
Date of Manufacture: 3-13

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 #: RL-8409
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%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: Justin Lopez Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 75.8
File ID #: 090066
[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] Z#: 266436 Date: 7-10-13
Verifier Print: Gerald Espinoza Verifier Sign: [signature] Z#: 237770 Date: 7-11-13

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

DRUM ID#: 74014

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: 9-11-13

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): 319.0

Scale ID#: 0190165

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date: 7-12-13

Verifier Print/Sign: Kevin Brusoak Date: 07/12/13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816342 Container Type: 55-GAL Gross Weight (lbs): 532

Inner Seal #: 010129 Filter Prefix: None Filter Serial #: None

AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0082

TWSR Comments: LEACHED-SOLIDS RM 434

Total PE-Ci Activity: 6.04E+00 Equivalent Combustible PE-Ci: 2.26E+00 AM-241 PE-Ci: 6.11E-01

Total Fissile Gram Equivalents: 62.2 Total Surface Dose Rate (mrem/hr): 9

EPA Code(s): D008 D007 D009 · WR 1/4/12

NCR RTR/NDA Comment: LANL: remediate-8 GAL. of prohibited liquid in plastic bags at 10" to 32"

RTR Pre-Screen Date: 12/11/2006 Comment: Impenetrable Obj, RTR BDR shows scrap lead

Certified RTR Comment: Prohibited liquid

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: Nitrate Salts apply mixture + EPA codes 11/29/12

Material Split package MT42 separately MMMT5L.

Performed By: Julie Gallegos / Julie Gallegos / 176905 / 10/18/12

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: 472# Generator info shows 7 items of nitrate salts; weights range from 44-73#. RTR BDR shows scrap lead, plastic bag + homogeneous solids. It also shows prohibited liquids. Nitrate salts require repack with admixture. No chemicals identified. Nitrate salts carry waste codes for chromium, lead, + mercury.

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

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 with hands. Use heavy duty gloves during processing.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: USE Proper PPE. Use proper ratio of kitty litter to waste in accordance with the procedure.

Performed By: G mh / [illegible] / 149235 / 6-2-13

TRU Remediation Operations (Print) Signature Z Number Date

Jose Jerez / Jose Jerez / 221452 / 6-21-13

HS REVIEW: RS 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 10129

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS-383-F1	20	NITRATE SALTS		2.56	52	/11	
2	DXFS-382-F1	22.95	NITRATE SALTS		1.53	42		
3	DXFS-384-F1	23.45	NITRATE SALTS		37.66	52	/11	
4	DXFS-385-F1	26.5	NITRATE SALTS		8.87	52	/11	
5	DXFS-386-F1	22.73	NITRATE SALTS		3.86	52	/11	
6	DXFS-387-F1	25.3	NITRATE SALTS		4.33	52	/11	
7	DXFS-388-FA	33.19	NITRATE SALTS		9.11	52	/11	
		174.12 kg						

Attachment 2 – CCP Radiography Data Sheet

Section 1 – General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0082
Examination Date:	08/15/12
Waste Container ID:	S816342
Video/Audio Recorded Media Number:	LA-HERTR-12-0082 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-1484-12 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: 240.0 kg. Tare Wt: 37.1 kg. Net Wt: 202.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner-Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	75 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S816342

Summary of Container Inventory and Comments (Detailed description)
Scrap lead
Plastic bag
Homogeneous solids

Packaging Material:		Estimated Weight (kg)
Steel (ST):		27.7
Plastics (PP):	Plastic Liner Bag and 90mil Liner and Lid	9.4
Others:		0.0
Total Packaging Weight:		37.1
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):		2.0
Organic Matrix (OR):		
Inorganic Matrix (IN):		188.9
Soils (S):		
Total WMP Weight:		202.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S816342

	Yes	No
Is there observable liquid?	☑	☐
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container **GREATER** than 1% of the container?	☑	☐
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐	☑
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments: NCR-LANL-1484-12
After review the operator stated on the audio/video recording media 0 Layers of confinement. The correct estimate is 1 Layer of confinement. This attachment 2 reflects the correct data.

RTR Operator:

Eric Lyles		08/15/12
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Jan 29 2013

Container No. (5.[1])	9816342					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1320.12 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm

N/A 1-30-13

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 1237975 (Z#)

Reviewed By: Nathan Wales (CCP (Print)) 1238566 (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#) 1-30-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130129c\
Data File : S816342.D
Acq On : 29 Jan 2013 3:09 pm (#1); 29 Jan 2013 3:07 pm (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 15:13:49 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Oct 04 08:07:46 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.927	GC1	389793m	1380.12	ppmv	

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

H2-CH4.M Tue Jan 29 15:13:54 2013 UNIT12

-11-13
0600 Assuming WCRF operations center. CDlande
0612 Rounds have been signed off by SOS.
0618 The job being conducted by SOS.
0800 Starting movement out of 5069
0804 Bagging on 9816394.
0813 Bag on complete.
0819 Permission granted to lower vehicle access gates for movement to area G.
0854 Vehicle access gates have been restored movement to area G complete.
0855 Operator exiting 5069. He is feeling ~~nauseous~~. CV 7-11-13 nauseous. SOS has been notified and IH will be ~~elevated~~ 7-11-13 evaluating operator.
1025 Bagging off 9816394, Bagging on 9816305
1052 Bag on, Bag off complete.
1124 Permission granted to lower vehicle access barriers for unloading of transport vehicle.
1330 Bagging off, Bagging on 9816304
1353 Bag on Bag off complete
1510 Starting outside rounds.
1516 Item #3 is unsat FSR in place OK to proceed.
1522 Bagging off (daughter).
1523 Starting inside rounds.
1527 Outside rounds complete.
1550 At 1500 notified by SOM that he has bumped his outside in the parking lot. Entering EP-WCRF-PM-EDP-209. RCTs, SOS and DOE were notified and OM has transported him to OCmed.
1617 Bagging off, Bagging on 9816342
1631 Rounds have been signed off by SOS.
1650 Notified by operator of WCG high high pressure FE-002 blow, and HCA-001.
1652 Mizer alarm acknowledged, suspend operations operators following RCT instructions
1656 Another mizer alarm acknowledged.
-Continued on next page-CHelande.

Continued from previous page - Avalanche. 11-12
1658 SOS, SOM, OM, FOD acknowledged - entering 181
EP-6 CRR ARP-0411, 405, 408, 409. and 18
entering LCO 3.3.1 and ~~3.3.0~~ 07-11-13 3.3.2 18.
and 3.0.1
1701 Emre contacted and asking about any 1'
power bumps.
1703 power dispatch contacted no power outages. 1'
1705 Generator did not kick on. CSE has been 1'
notified ok to turn back on.
1740 Operators intering to restart ventilation. 2
1744 Ventilation has been restarted: 0
1746 Ventilation start up failure. 0
1751 Ventilation has been restarted. 0
1803 Ventilation readings are normal.
1815 performed shift turnover with OCO, Terri Coleman
CRDane

See further entries this page

7-13
1815 assuming WCRR operations center. - JColeman
1817 Pre-job being conducted by SOS.
1820 Contacted Engineering Manager designee on call to come to WCRR to sign off on the LCO paperwork.
1842 Engineering Manager designee has arrived to sign off on the LCO paperwork. Exiting LCO's. Pre-job concluded.
1954 Initiating a drum movement from transportainer to 50-69.
1955 Late entry - at 1917, operators entering 50-69 to resume operations on drum # 581634 2. (JC)
2008 Drum movement into 50-69 complete.
2103 Initiating a drum movement from 50-69 to a transportainer.
2130 Drum movement out of 50-69 complete.
2203 Bagging off 1 daughter JC 7-11-13 and 2 POC's JC 7-11-13, bagging on another ~~daughter~~ POC JC 7-11-13
2220 Late entry at 2145, and JC 7-11-13 an operator walking down the hallway hit his (R) shoulder on the corner of the BBS box on the wall. SOS, SOM notified of a long red scratch. Entered EP-WCRR-RM-EOP0309. JH also notified. (JC)
2225 DOE hotline called and a message was left by SOM.
2235 Bag off/on complete.
2253 Entering EP-WCRR-RM-AOP-0207 due to lightning.
2257 Beginning 30 minute wait time again due to another clap of thunder.
2300 Entered an FSR # 109073 for the BBS box to be relocated.
2305 Beginning 30 minute wait time again due to another clap of thunder.
2314 Beginning 30 minute wait time again due to another clap of thunder.
2316 Beginning 30 minute wait time again due to another clap of thunder.
2318 30 more for thunder.
2323 30 more for thunder.
2340 30 more for thunder.
2358 Bagging off 1 POC, bagging on a daughter.
0017 Bag off/on complete.
0036 Exiting EP-WCRR-RM-AOP-0207. Resuming outside operations.
Continued on next page JColeman

7-12-13 Continued from previous page. - JColeman
0210 Entered an FSR# 109074 for the leaking ceiling inside the Artic area, bldg 37.
0246 Bagging off 1 daughter, bagging on another daughter.
0253 Beginning outside rounds.
0258 Item #3 is unsat, Okay to proceed, FSR in place. Bag off/on complete.
0308 Beginning inside rounds.
0315 Outside rounds complete.
0342 Item #63 is OOS, Okay to proceed, PDI in place.
0345 Inside rounds complete.
0423 Bagging off 1 daughter, bagging on 94010 to reabsorb with Kitty litter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Initiating a drum movement from 5069 to a transportainer.
0610 Both rounds reviewed by SCS.
0615 Drum movement complete. All inventory has now been removed from the facility.
0626 Mode change complete. We are now in warm in WCRRF yard and cold in 5069.
7-12-13 0630 End of day. OCO position secure - JColeman
HH

No further entries this page

PROJECT NAME 7-11-13 DAYSHIFT NOTEBOOK NO.

0614 Reviewed the shift turnover checklist, reviewed approved and posted oncoming watchbill. Completed turnover with Nightshift SOM and assumed the WCRR SOM position [illegible]

0640 Completed attending the pre-job brief conducted by (Gilbert) the SOS. Issues identified by the team include: Operators complained of heat in the back area especially when wearing lead vests. Requested the temperature to be lowered - even 1-2 degrees. The dose rate on the SP-57 Nitrate Salts are high, Time, distance and shielding was discussed. EPD requirements discussed. The team is low on HEX-ARMOR sleeves, it was suggested Tyvex sleeves be used over the gauntlets. Shift Order WCRR-SH-13-003 R2 - Manual Drum Movements is still in affect. One transfer out is scheduled to AREA G.

0710 Completed daily FOD conference call in

0745 DOE/FR and DOE Facility representative (JF) arrive to perform assessment of SD 69 Floordrains

0801 Upon performing a move out of 7 drums from inside the facility, operations bagged on SB16394

0845 DOE exited the operations center and their concern was in their opinion the drains require cleaning and the truck bay Floor drain looks clogged.

0846 0830 late Entry for One operator reported nausea after opening plastic new bag on bags, Notification was made to the ES/IH, operator is sitting in fresh air and ES/IH is monitoring.

0856 The transfer out of 12 drums to AREA G is completed. No issues noted - Upon review of the transfer in, one SEDs document was missing for drum 93752 - Notification was made to Production Control, they are acquiring SEDs.

0922 Notification was made to the Operations Center by P&T that drum SB16084 was being dropped.

1011 With EWMD support the SOM conducted walkdown of portable light in the parking lot at WCRR, the diesel fuel was dripping onto the catch pan - Notification was made to Craft supervision to change out and replace the catch pan. The OCC was also notified.

1025 Operations initiated bagging off SB16394 and bagging on SB16305

1052 Bagging on and off were reported completed

1215 Completed the daily facility update to the PM/OM.

1305 The crafts repaired the diesel generator leak on the light power plant, they requested Inforce to replace the catch pan and kitty litter.

1312 The nauseated operator was reported to be feeling better and the SOS on ES/IH declared him ready and fit for duty. He entered SD 69 to support operations.

1450 SOM notified OM that the SOM bumped his forehead in the parking lot outside controlled area, noted as 1st AID notification made to OM.

1500 OCC entered EPWCRR-RM-EOP-0009, RCTs SOS and DOE were notified. SOM exiting to OCC Med work OM for First AID - bandage

1650 Notified by operator/SOS of WCG high high Pressure FE-002 flow and (HVA-20)

1652 Mizer Alarm acknowledged / SOM + OM suspend operations and ~~following~~ operations following RCT instructions,

1658 The SOS, SOM, OM, FOD + DOE were all notified, also entering EP-WCRR-ARP-0411, 405, 408, 409 and entering LCO 3.3.1 and 3.3.2 and 3.0.

SIGNATURE (continued on Next Page) DATE 20

READ AND UNDERSTOOD no further entries this page DATE 20

PROJECT NAME 7-11-13 DAY SHIFT Continued NOTEBOOK NO.

1701 EM&R Contacted and did not know of any power bumps
1703 Power dispatch contacted and did not know of any power bumps
1705 Generator did not kick on, and CSE was contacted.
1740 Operators entered to restart Ventilation.
1744 Ventilation was restarted
1746 Inside Operator indicates Ventilation start up failure
1751 Ventilation has been restarted.
1803 All Ventilation readings are normal, Exiting LCOs.
1815 Conducted shift brief turnover with incoming SOM Nightshift
1818 The nightshift SOM completed signing off the watchbill.
1820 It was discussed by OM, RP-1, SOM, and CSE, that potentially the filters require changing in the WCG glovebox, this will be scheduled Monday AM.
1825 Secured the SOM position for Day shift [illegible]

[illegible] 7-12-13

No Further Entries this Page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

PROJECT NAME 7/11/13 Night Shift NOTEBOOK NO.

1825 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1845 Attended pre job brief conducted by SOS. Discussed current condition of facility and path forward to resume operations. Shift order WCRR-SH-13-003 R2 Manual Drum Movements still in effect. At end of shift facility needs to be in Cold for maintenance.

1850 Completed close out of LCO entry paperwork

2008 Completed movement of drums into 50-69 for denesting / processing

2130 Drum movement out of 50-69 to transportainers complete.

2145 Notified of operator walking down hallway 50-69 hit his right arm on BBS mail box resulting in a 2 inch scratch barely producing blood. Entered into EP-WCRR-RM-AOP-0309 for minor injury. Notified OM and ES-TH. Placed padding on sharp corners of metal box.

2225 Left message on DOE Hotline of minor injury.

2230 Notified by SOS that drum being processed is a nitrate salt drum

2253 Entering EP-WCRR-RM-AOP-0207 Severe Weather due to lightning. Implementing 30/30 rule.

2300 OCO initiated an FSR to have the BBS box relocated.

2305 Restarting 30 minute clock for lightning.

1/12/130036 Exited EP-WCRR-RM-AOP-0207. Resuming outside operations.

0210 SOS identified leakage of water into Arctic building from roof caused by rain. FSR submitted.

0450 Completed all bag offs related to parent drum 5816342. Bagged on 94010 to reprocess using Kitty Litter. Drum had initially been processed w/ Waste Lock absorbent instead of Kitty Litter.

0525 Completed all bag offs. Production for this shift is 1 parent, 3 daughters and 2 POC's on the 7/12/13 2330-0600 shift. Weekly totals are 15 parents processed resulting in 24 daughters and 6 POC's.

0611 Review of inside rounds had item #37 WCG vacuum reading -0.52 inches wc. Per directions in Section 6.14 Filter change is scheduled for Monday 7/15/13.

0624 Completed Mode Change: WCRR Yard - Warm 50-69 is Cold.

0632 Secured night shift SOM position - turned over to day shift SOM.

1-11-13

No further entries this page

SIGNATURE DATE 7/12 20 13
READ AND UNDERSTOOD DATE 20

7/11/13 WCRR SOS LOG BOOK

0600 Assuming SOS position.

0615 Conducting shift brief talked about heat inside and staying Hydrated.

0635 Shift brief Complete

0645 Operators entering Facility.

0700 starting movement out of 50-69

0804 Bagging on S816354

0813 Bag off/on complete

0819 Operators Lowering access gates

0834 movement Complete

0855 Operator exiting 50-69 He is Feeling ill IH will evaluate operator.

1023 Bagging off S816394 Bagging on S816305

1052 Bag on/off Complete

1125 Lowering access gates for unloading transport vehicle.

1330 Bagging off bagging on S816304

1333 Bag off/on Complete

1510 Starting Rounds.

1512 Bagging off daughter.

1550 Late entry At 1500 notified son bumped his head entered EP-WCRR-RM BOP-205 son transported to armed

1617 Bagging off bagging on S816342

1631 Reviewed Inside And outside Rounds.

1650 On 7-9-13 ~~Operators~~ operators Inside Notified of WC6 high high pressure PE-002 low and HPA-001

1652 Mixer Alarm acknowledged Suspended operations, operators following PCT Instruction.

1656 Mixer Acknowledged

1658 entering EP-WCRR-ARP-0411, 405, 407, 409 and entering LCO 3.3.1 And 3.3.2 And 3.3.6

1740 Operators Monitoring to restart ventilation

1744 Ventilation Restarted.

1746 Ventilation Start up failure

1751 Ventilation restarted.

1803 Ventilation numbers normal

1920 Sos turn over with clayton Mullins
No further entries.

7/11/13 WCRR SOS Log Book

1815 Assuming SOS position. CM

1820 Starting Pre-Job, discussed alarms and potential for alarms overnight due to low flow rate on the outlet HEPA's of the WCG. Also having to go to cold at end of shift.

1851 Pre-~~Job~~ cm 7-11-13 Job complete.

1855 Late entry @ 1842 Exiting LCO's. CM

1954 Starting movement into 50-69.

2008 Movement into 50-69 complete.

2020 Operators inside state that suction in WCG feels ~~non~~ cm 7-11-13 weak almost like there is no suction. Will continue to keep an ~~ego~~ cm 7-11-13 eye on that. Also told by day shift operator that drum lift making grinding sound, will perform inspection at most convient time. Inner roll up door in high bay when closing ended up stuck on one side about 5ft. off the ground, after raising it up a foot it closed properly.

2103 Starting movement out of 50-69.

2130 Move out complete.

2203 Bagging off 1 daughter and 1 POC, bagging on a POC.

2220 Late entry @ 2145 an operator bumped into the BBS box in the hallway, causing his R shoulder to scratch. SOM and IH notified, entering EP-WCRR-RM-EOP-0309

2225 SOM left message on DOE hotline.

2235 Bag off/on complete.

2253 Entering EP-WCRR-RM-AOP-0207 because of lightning.

2300 FSR submitted #109073 to have BBS box relocated.

2358 Bagging off 1 POC, bagging a daughter on.

0017 Bag off/on complete.

0036 Exiting EP-WCRR-RM-AOP-0207.

0210 FSR submitted #109074 for leaks in artic roof.

0243 Bagging off 1 daughter and bagging on another daughter.

0258 Bag off/on complete.

Continued on ~~7/11/13~~ cm ~~7/11/13~~ cm Next Page. CMills

7/12/13 Continued from previous page. C Mullins
0423 Bagging off 1 daughter, bagging on 94010 to add kitty liter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Starting movement out of 50-69.
0610 Signed off on the rounds.
0622 Move out complete.
0625 Securing SOS position. C M
RLG

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-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94011
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 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.: 172.0 kg Tare Wt.: 145.1 kg Net Wt.: 26.9 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: 94011

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):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.9
Soils (S):	
Total WMP Weight:	26.9

CCP Radiography Data Sheet

Waste Container ID: 94011

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		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94011	Count Sequence Number:	16189
Operator:	DCLTD231\Operator		
Assay Start:	7/17/2013 2:38:36 PM		
Description 1:	2LANDA1195		
Description 2:	POC - Gross Wt. = 172.0 Kg		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 26.9 kg	Net:	26.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.730 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: 16189
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 94011

Batch Number: 2LANDA1195
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/17/2013

Net Weight	26900.0 g		
Pu mass	4.80E+000	+-	2.91E+000 g
TRU Alpha Activity	3.78E+000	+-	2.37E+000 Ci
TRU Activity Concentration	1.41E+005	+-	8.80E+004 nCi/g
Pu-239 Equivalent Activity	3.79E+000	+-	2.37E+000 Ci
Pu-239 FGE	4.45E+000	+-	2.90E+000 g
Decay heat	1.26E-001	+-	7.90E-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	3.99E-007
U233	<LLD	<LLD	0.00E+000	4.20E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.36E-006
NP237	3.25E-002	2.32E-005	4.45E-006	2.28E-006
PU238	1.14E-003	1.98E-002	1.33E-002	1.11E-003
U238	<LLD	<LLD	0.00E+000	8.46E-006
PU239	4.41E+000	2.77E-001	1.82E-001	1.55E-002
PU240	2.88E-001	6.63E-002	4.46E-002	3.72E-003
AM241	9.85E-001	3.42E+000	2.36E+000	9.44E-002
PU241	6.71E-003	6.98E-001	4.70E-001	3.91E-002
PU242	9.91E-002	3.93E-004	2.65E-004	0.00E+000

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-19-13

ITR: [illegible] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16189 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94011
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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. No Warnings Reported.	Ok
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-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

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

Expert Review by: Sheri Chambers Date: 7-18-13

Waste Container ID: **94011**

BDR Number: **LA13FG12068**

Sampling Date: **7/30/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	140.75	
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\130730c\
Data File : 94011.D
Acq On : 30 Jul 2013 1:31 pm (#1); 30 Jul 2013 1:30 pm (#2)
Operator : SA
Sample :
Misc : POC THROUGH DRUM FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 30 13:36:44 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	1.900	GC1	40148m	140.75	ppmv	

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

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0084
Examination Date:	7/16/2013
Waste Container ID:	94012
Video/Audio Recorded Media Number:	LA-HERTR-13-0084 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 165.0 kg Tare Wt.: 145.1 kg Net Wt.: 19.9 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 1 layer
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 94012

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

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):	109.0
Plastics (PP): Rigid Liner/Lid, Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP) Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	17.4
Soils (S):	
Total WMP Weight:	19.9

CCP Radiography Data Sheet

Waste Container ID: 94012

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:

Benito Maestas		7/16/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94012	Count Sequence Number:	16183
Operator:	DCLTD231\Operator		
Assay Start:	7/17/2013 9:37:00 AM		
Description 1:	2LANDA1195		
Description 2:	POC - Gross Wt. = 165 Kg		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 19.9 kg	Net:	19.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	. 0.695 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:	16183	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94012	Analysis Date:	7/17/2013

Net Weight	19900.0 g		
Pu mass	2.42E+000	+-	4.17E-001 g
TRU Alpha Activity	5.26E+000	+-	3.49E+000 Ci
TRU Activity Concentration	2.64E+005	+-	1.76E+005 nCi/g
Pu-239 Equivalent Activity	5.26E+000	+-	3.49E+000 Ci
Pu-239 FGE	2.26E+000	+-	4.16E-001 g
Decay heat	1.75E-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	4.41E-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	1.58E-006
NP237	4.97E-002	3.55E-005	6.58E-006	2.71E-006
PU238	5.77E-004	9.98E-003	2.34E-003	1.49E-003
U238	<LLD	<LLD	0.00E+000	1.05E-005
PU239	2.22E+000	1.40E-001	2.62E-002	2.09E-002
PU240	1.45E-001	3.34E-002	7.83E-003	4.99E-003
AM241	1.46E+000	5.07E+000	3.49E+000	1.04E-001
PU241	3.38E-003	3.52E-001	8.24E-002	5.26E-002
PU242	4.97E-002	1.97E-004	4.60E-005	0.00E+000
AM243	5.99E-004	1.21E-004	2.26E-005	3.63E-006

Errors quoted at 1.000 sigma

Operator: Brit Tupton Date: 7-19-13

ITR: [illegible] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16183 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94012
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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.	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-52,42.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 7-18-13

Waste Container ID: **94012**

BDR Number: **LA13FG12069**

Sampling Date: **7/31/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	80.85	
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\130731C\
Data File : 94012.D
Acq On : 31 Jul 2013 10:43 am (#1); 31 Jul 2013 10:41 am (#2)
Operator : RJ
Sample :
Misc : POC through drum filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 31 10:48:04 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	1.900	GC1	23063m	80.85	ppmv	

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

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94013
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 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.: 142.0 kg Tare Wt.: 33.4 kg Net Wt.: 108.6 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: 94013

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):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	104.6
Soils (S):	
Total WMP Weight:	108.6

CCP Radiography Data Sheet

Waste Container ID: 94013

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		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94013	Count Sequence Number:	16197
Operator:	DCLTD231\Operator		
Assay Start:	7/18/2013 12:13:33 PM		
Description 1:	2LANDA1196		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 109.0 kg	Net:	109.0 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.870 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:	16197	Batch Number:	2LANDA1196
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94013	Analysis Date:	7/18/2013

Net Weight	109000.0 g		
Pu mass	2.86E+001	+-	6.11E+000 g
TRU Alpha Activity	2.33E+001	+-	1.17E+001 Ci
TRU Activity Concentration	2.14E+005	+-	1.07E+005 nCi/g
Pu-239 Equivalent Activity	2.34E+001	+-	1.17E+001 Ci
Pu-239 FGE	2.65E+001	+-	6.09E+000 g
Decay heat	7.75E-001	+-	3.91E-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	1.85E-006
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	4.43E-006
NP237	3.58E-001	2.56E-004	5.38E-005	7.66E-006
PU238	6.82E-003	1.18E-001	3.20E-002	3.90E-003
U238	<LLD	<LLD	0.00E+000	3.75E-005
PU239	2.63E+001	1.65E+000	3.83E-001	5.46E-002
PU240	1.72E+000	3.95E-001	1.07E-001	1.31E-002
AM241	6.10E+000	2.12E+001	1.17E+001	1.14E-001
PU241	4.00E-002	4.16E+000	1.13E+000	1.38E-001
PU242	5.90E-001	2.34E-003	6.35E-004	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-22-13

ITR: _____ Date: 7-23-2013

Automated Independent Technical Review

Count Sequence Number: 16197 Batch Number: 2LANDA1196
Counter ID: HENC #2
Container ID: 94013
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than n-sigma * the correction factor error.	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. 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-52,42.

Comments	Disposition
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.

Expert Review by: Sheri Chamberlin Date: 7-22-13

Waste Container ID: **94013**

BDR Number: **LA13FG12065**

Sampling Date: **7/19/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	563.09	
74-82-8	Methane	15.92	
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\130719c\
Data File : 94013.D
Acq On : 19 Jul 2013 1:47 pm (#1); 19 Jul 2013 1:45 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 19 13:51:41 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	1.900	GC1	160622m	563.09	ppmv	
2) Methane	3.753	GC1	2123m	15.92	ppmv	

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

H2-CH4.M Fri Jul 19 14:04:31 2013 UNIT12

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94014
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 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.: 144.5 kg Tare Wt.: 33.4 kg Net Wt.: 111.1 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 94014

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):	11.1
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	96.0
Soils (S):	
Total WMP Weight:	111.1

CCP Radiography Data Sheet

Waste Container ID: 94014

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		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94014	Count Sequence Number:	16190
Operator:	DCLTD231\Operator		
Assay Start:	7/17/2013 3:19:16 PM		
Description 1:	2LANDA1195		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 111.0 kg	Net:	111.0 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.890 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: 16190
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 94014

Batch Number: 2LANDA1195
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/17/2013

Net Weight	111000.0 g		
Pu mass	3.64E+001	+-	7.82E+000 g
TRU Alpha Activity	3.20E+000	+-	4.75E-001 Ci
TRU Activity Concentration	2.89E+004	+-	4.28E+003 nCi/g
Pu-239 Equivalent Activity	3.29E+000	+-	4.75E-001 Ci
Pu-239 FGE	3.36E+001	+-	7.18E+000 g
Decay heat	1.01E-001	+-	1.48E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.84E-001	2.03E-004	4.33E-005	5.82E-006
PU238	8.67E-003	1.50E-001	3.22E-002	5.94E-005
PU239	3.34E+001	2.10E+000	4.51E-001	8.32E-004
PU240	2.18E+000	5.02E-001	1.08E-001	1.99E-004
AM241	1.29E-001	4.49E-001	9.65E-002	1.78E-004
PU241	5.09E-002	5.29E+000	1.14E+000	2.09E-003
PU242	7.49E-001	2.97E-003	6.39E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.53E-006
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	3.28E-006
U238	<LLD	<LLD	0.00E+000	3.39E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-19-13

ITR: [illegible] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16190 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94014
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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
Ratio of Pu-239 414 to 129 keV line activities is above the limit of 2.50	Not data affecting, neutron results applied.
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.

Expert Review by: Sheri Chambers Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94014**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	21.54	
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\130718c\
Data File : 94014.D
Acq On : 18 Jul 2013 1:17 pm (#1); 18 Jul 2013 1:16 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: Jul 18 13:23:13 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	1.900	GC1	6143m	21.54	ppmv	

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

Working Copy
Date: 7-11-13 ω

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 94010 (original parent S816342)

6.2[4] Date Processed: 07/12/13

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: 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: 07/31/13

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: Kevin Beluscak / Kevin Beluscak 123844 / 07/12/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 94010

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 105.6 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 105.6 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)	N/A Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 94010

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	940116		N	
10.1[4]	Daughter Drum Filter No.	KL-500			
10.1[4]	Daughter Drum Bag Filter No.	L-8132		A	
10.1[4]	Daughter Drum Purchase Order No.	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			N	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)			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	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	50%		A	
10.5[3]/10.6[2]	Description Waste Added During Processing	Stab outs Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 94010

Comments: Nitrate Salts, Plastic,

11.1[1] Performed By: Kevin Burscak / Kevin Burscak / 1238149 / 07/12/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Clayton Mullins / CA / 1240042 / 7/16/13 1421
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 7-11-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415 257
Lot No.: 0220 646
Manufacture Date: 11

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.: ~~7-1013~~ 019DS
Serial No.: FK-1145
Manufacture Date: 6-10

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

5. [11] Performed By: Jan Marquez [signature] 1276204 7-11-13
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/A

8.1[1] Performed By: Jan Marquez [signature] 1276204 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayta Mullins [signature] 240092 7/16/13
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 7-11-13 ME

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94017

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 09/11/13
Range in ft-lb: 10-80
Tolerance: +/- 3% cw and +/- 6% ccw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Kevin Beluscak / Kevin Beluscak / 1238[illegible] / 07/12/13
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: 07/31/13

7.[35][D] 85-gal overpack drum gross weight (lb): 168.6 lb

Comments: N/C

8.1[1] Performed By: Kevin Beluscak / Kevin Beluscak / 1238[illegible] / 07/12/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [illegible] / 240092 / 7/16/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 940110

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: 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 #: BCPVC1.5-DSPVC
Serial #: 1-8132
Date of Manufacture: 3-13

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 #: D19DS
Serial #: KL-500
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): 40-200
Tolerance: ±4% cw ±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 ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: MICHAEL MONTOYA Signature: [signature] Z#: 191352

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 75.8
File ID #: 014065

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

6. Label Drum Assembly

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

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

Operator Print: MICHAEL MONTOYA Operator Sign: [signature] Z#: 191352 Date: 7-08-13
Verifier Print: Kevin Belusca Verifier Sign: Kevin Belusca Z#: 238199 Date: 07/12/13

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

DRUM ID#: 940116

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: 09/11/13

Range/ Value (ft-lbs): 18-80

— Tolerance +/- 3% cw and +/- 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): 131.8

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: Kevin Belusek Date 07/12/13

Verifier Print/Sign: Gerald Espinoza Date: 7-12-13

7-12-13 Continued from previous page. - JColeman
0210 Entered an FSR# 109014 for the leaking ceiling inside the Artic area, bldg 37.
0246 Bagging off 1 daughter, bagging on another daughter.
0253 Beginning outside rounds.
0258 Item #3 is unsat, Okay to proceed, FSR in place. Bag off/on complete.
0308 Beginning inside rounds.
0315 Outside rounds complete.
0342 Item #63 is OOS, Okay to proceed, PDD in place.
0345 Inside rounds complete.
0423 Bagging off 1 daughter, bagging on 94010 to reabsorb with Kitty litter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Initiating a drum movement from 5069 to a transportainer.
0610 Both rounds reviewed by SCS.
0615 Drum movement complete. All inventory has now been removed from the facility.
0626 Mode change complete. We are now in warm in WCRRF yard and cold in 5069.
7-12-13 0630 End of day. OCO position secure - JColeman
HR

No further entries this page

PROJECT NAME 7/11/13 Night Shift NOTEBOOK NO.

1825 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1845 Attended pre job brief conducted by SOS. Discussed current condition of facility and path forward to resume operations. Shift order WCRR-SH-13-003 R2 Manual Drum Movements still in effect. At end of shift facility needs to be in Cold for maintenance.

1850 Completed closeout of LCO entry paperwork

2008 Completed movement of drums into 50-69 for denesting/processing

2130 Drum movement out of 50-69 to transportainers complete.

2145 Notified of operator walking down hallway 50-69 hit his right arm on BBS mail box resulting in a 2 inch scratch barely producing blood. Entered into EP-WCRR-RM-EOP-0309 for minor injury. Notified OM and ES-TH. Placed padding on sharp corners of metal box.

2225 Left message on DOE Hotline of minor injury.

2230 Notified by SOS that drum being processed is a nitrate salt drum

2253 Entering EP-WCRR-RM-AOP-0207 Severe Weather due to lightning. Implementing 30/30 rule.

2300 OCO initiated an FSR to have the BBS box relocated.

2305 Restarting 30 minute clock for lightning.

1/x/130036 Exited EP-WCRR-RM-AOP-0207. Resuming outside operations.

0210 SOS identified leakage of water into Arctic building from roof caused by rain. FSR submitted.

0450 Completed all bag offs related to parent drum 5816342. Bagged on 94010 to reprocess using Kitty Litter. Drum had initially been processed w/ Waste Lock absorbent instead of Kitty Litter.

0525 Completed all bag offs. Production for this shift is 1 parent, 3 daughters and 2 POC's on the 7/12/13 2330-0600 shift. Weekly totals are 15 parents processed resulting in 24 daughters and 6 POC's.

0611 Review of inside rounds had item #37 WCG vacuum reading -0.52 inches wc. Per directions in Section 6.14 Filter change is scheduled for Monday 7/15/13.

0624 Completed Mode Change: WCRR Yard - Warm 50-69 is Cold.

0632 Secured night shift SOM position - turned over to day shift SOM.

1-17-13

No further entries this page

SIGNATURE DATE 7/12 20 13

READ AND UNDERSTOOD DATE 20

7/12/13 Continued from previous page. CMullins
0423 Bagging off 1 daughter, bagging on 94010 to add kitty liter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Starting movement out of 50-69.
0610 Signed off on the rounds.
0622 Move out complete.
0625 Securing SOS position. CM
RLG

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-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94016
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 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.: 59.5 kg Tare Wt.: 33.4 kg Net Wt.: 26.1 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:	45 %

CCP Radiography Data Sheet

Waste Container ID: 94016

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal, wire mesh, metal hardware
AM:	
OM:	
OI:	
C:	Tape roll
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):	0.8
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	0.1
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	22.2
Soils (S):	
Total WMP Weight:	26.1

CCP Radiography Data Sheet

Waste Container ID: 94016

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		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94016	Count Sequence Number:	16188
Operator:	DCLTD231\Operator		
Assay Start:	7/17/2013 1:47:40 PM		
Description 1:	2LANDA1195		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 26.1 kg	Net:	26.1 kg
Container:	Volume: 208.0 l	Full:	45.0 %
Density:	0.280 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:	16188	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94016	Analysis Date:	7/17/2013

Net Weight	26100.0 g		
Pu mass	3.98E+000	+-	6.85E-001 g
TRU Alpha Activity	2.59E+000	+-	1.20E+000 Ci
TRU Activity Concentration	9.93E+004	+-	4.59E+004 nCi/g
Pu-239 Equivalent Activity	2.60E+000	+-	1.20E+000 Ci
Pu-239 FGE	3.69E+000	+-	6.28E-001 g
Decay heat	8.59E-002	+-	4.00E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.83E-002	2.74E-005	3.11E-006	1.21E-006
PU238	9.49E-004	1.64E-002	2.82E-003	5.99E-005
PU239	3.66E+000	2.30E-001	3.95E-002	8.39E-004
PU240	2.39E-001	5.50E-002	9.45E-003	2.01E-004
AM241	6.59E-001	2.29E+000	1.20E+000	1.87E-002
PU241	5.57E-003	5.79E-001	9.95E-002	2.11E-003
PU242	8.20E-002	3.25E-004	5.59E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.65E-007
U233	<LLD	<LLD	0.00E+000	2.33E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.93E-007
U238	<LLD	<LLD	0.00E+000	6.69E-006

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-19-13

ITR: [illegible] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16188 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94016
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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

Expert Review by: Sheri Chamber Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94016**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	47.99	
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\130718c\
Data File : 94016.D
Acq On : 18 Jul 2013 3:29 pm (#1); 18 Jul 2013 3:28 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: Jul 18 15:33:52 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	13688m	47.99	ppmv	

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

S816394

S816394

Container Profile 759559

File Options Reports Help

S816394

759559	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

S816394
- S816394
  - 94004 – EMPTY
  - 94003

Task History

Transfer Details

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

Working Copy
Date: 07/11/13 KB

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816394

6.2[4] Date Processed: 7-11-13

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: D003, D008, 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] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

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

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

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

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

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

Performed By: Brandon Chavez / [signature] 004782 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	5816391
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	426.6 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)	426.6 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
N/A		/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S816394

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94003			
10.1[4]	Daughter Drum Filter No.	KL-490		N	
10.1[4]	Daughter Drum Bag Filter No.	L-8003			
10.1[4]	Daughter Drum Purchase Order No.	501103		A	
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	
10.2[7][B]/10.2[6]	POC Item Description			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	2 gal		A	
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	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	plastic			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5816394

Comments: Nitrate salts, Kitty litter, Lead, pH-2

11.1[1] Performed By: Brandon Chavez / [signature] 0047112 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Clayton Mullins CA 1240092 / 11/8/13 0007
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 7-8-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
Manufacture Date: 13

(B2) 9/23/2014

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:	±1%cw ±6%ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 913
Serial No.: JL-1975
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] [illegible] 7-8-13
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: H/C

8.1[1] Performed By: Brandon Chavez / [signature] [illegible] 7-8-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: GMK / [signature] 14[illegible] 7/16/13
Supervisor or designee (print) Signature Z # Date

Archive

Working Copy
Date: 7-11-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413984
Lot No.: 211429
Manufacture Date:

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.: 1K-195
Manufacture Date: 9-10

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

5. [11] Performed By: [illegible] / [illegible] [illegible] / 7-11-13
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/A

8.1[1] Performed By: [illegible] / [illegible] [illegible] / 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mk / [illegible] [illegible] / 7/16/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 07/11/13 KB

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 9423/14 (B2) ~~9400~~ 94003

7.[24] Overpack drum closure ring torque wrench information:

M&TE No.: 038373
Cal. Expiration Date: 8-11-13
Range in ft-lb: 10-80
Tolerance: ±3% ccw ±6% cw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / [signature] B04742 7-11-13
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: 019665
Platform scale calibration expiration date: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 179.8 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] B04742 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Wk / [signature] 149275 7/16/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 94003

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 #: 02347465
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 #: 3COYCL5-2SAVC
Serial #: L 8003
Date of Manufacture: 7/13

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 440
Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 100216
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: ±1%CW±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±6%CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: JOHN MARQUEZ Signature [signature] Z#: 276705

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: JOHN MARQUEZ Operator Sign: [signature] Z#: 276705 Date: 7-8-13
Verifier Print: Brandon Chavez Verifier Sign: [signature] Z#: 204742 Date: 7-11-13

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

DRUM ID#: 94003

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: 9-11-13

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): 484.6

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: Brandon Chavez Date 7-11-13

Verifier Print/Sign: Joe Quintana Date: 7/11/13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816394 Container Type: 55-GAL Gross Weight (lbs): 414
Inner Seal #: 010091 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 1.12E+00 Equivalent Combustible PE-Ci: 4.21E-01 AM-241 PE-Ci: 1.70E-01
Total Fissile Gram Equivalents: 9.5 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D001 D009 ML 12/11/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 10/4/2012 Comment: 10 Gal. of liquid from 22" to 32"
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: Nitrate Salts apply mixture & EPA codes Material split package MT42 separately from MT9X

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: 354# Generator info shows 5 items of nitrate salts; weights range from 7-110#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags & can contain undocumented liquids. RTR PS shows presence of liquids. Nitrate salts require repack w/ admixture. No chemicals identified; nitrate salts carry waste codes for chromium, lead, & mercury.

Performed By: Valerie Rhoden (WDP Engineering (Print)) / Valerie Rhoden (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 Hermanac gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE. Use proper ratio of kitty litter to Nitrate Salts in accordance with the procedure

Performed By: G Mk (TRU Remediation Operations (Print)) / G Mk (Signature) / 149235 (Z Number) / 6.2.13 (Date)
Jose Jerez / Jose Jerez / 221452 / 6-9-13

IHS Review: AB 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 010091

Item#	ItemID	Net (kg)	Matrix	RI Code	NM	NT	Auth	Remarks
1	IXFS 395 F1	21.59	NITRATE SALTS		4.89	52	5/11	
2	IXFS 396 F1	3.18	NITRATE SALTS		0	53	5/11	
3	IXFS 399 F1	25	NITRATE SALTS		3.14	52	5/11	
4	IXFS 398 F1	49.54	NITRATE SALTS		1.85	52	5/11	
5	IXFS 399 F1	21.14	NITRATE SALTS		1.39	42	5/11	
		120.45 kg						

1 2 2 1 1 9 1

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Jan 29 2013

Container No. (5.[1])	S816394					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	N/A 1/30/13 ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	362.9 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)) 1237975 (Z#)

Reviewed By: Nathan Wales (CCP (Print)) 1238866 (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#) 1-30-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130129c\
Data File : S816394.D
Acq On : 29 Jan 2013 1:28 pm (#1); 29 Jan 2013 1:26 pm (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 13:31:57 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Oct 04 08:07:46 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.933	GC1	102295m	362.19	ppmv	

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

H2-CH4.M Tue Jan 29 13:32:05 2013 UNIT12

7-11-13
0400 Assuming WCCF operations center. CD Daude
0412 Rounds have been signed off by SOS
0418 The job being conducted by SOS.
0800 Starting movement out of 50 69
0804 Bagging on 9816394.
0813 Bag on complete.
0819 Permission granted to lower vehicle access gates for movement to area G.
0854 Vehicle access gates have been restored movement to area G complete
0855 Operator exiting 50 69. He is feeling ~~nauseous~~. CV 7-11-13 nauseous. SOS has been notified and IH will be ~~elevated~~ CV 7-11-13 evaluating operator.
1025 Bagging off 9816394, Bagging on 9816305
1052 Bag on, Bag off complete
1124 Permission granted to lower vehicle access barriers for unloading of transport vehicle
1330 Bagging off, Bagging on 9816304
1355 Bag on Bag off complete
1510 Starting outside rounds.
1514 Item A3 is unsat FSR in place OK to proceed
1522 Bagging off (daughter)
1523 Starting inside rounds
1527 Outside rounds complete
1550 At 1500 notified by Sim that he has bumped his outside in the parking lot letting EP-WCCF-PM-CF 819 Rats, SOS and DOE were notified and Sim has transported him to DCmed
1417 Bagging off, Bagging on 9816342
1431 Rounds have been signed off by SOS.
1450 notified by operator of CCG high high pressure FE-002 close, and HCA-001
1252 mizer alarm acknowledged, suspend operations operators following RCT instructions
1456 Another mizer alarm acknowledged.
— Continued on next page — Chelsea.

Continued from previous page Orlando.

1658 SOS, SIM, OM, ~~FED acknowledged~~ entering EP-LCOR ARP-0411, 405, 408, 409. and entering LCO 3.3.1 and ~~3.3.6~~ ARP-0413 3.3.2 and 3.0.1

1701 Ernie contacted and asking about any power bumps.

1703 power dispatch contacted, no power outages.

1705 Generator did not kick on. OE has been notified ok to turn back on.

1740 Operators entering to restart ventilation.

1744 Ventilation has been restarted.

1746 Ventilation start up failure.

1751 Ventilation has been restarted.

1805 Ventilation readings are normal.

1815 performed shift turnover with OCC Terri Warner CRO Dave

Another entries this page.

7-11-13 assuming WCRR operations center. - JColeman
1816 Pre-job being conducted by SOS.
1817 Contacted Engineering Manager designee oncall to come to
1820 WCRR to sign off on the LCO paperwork.
1842 Engineering Manager designee has arrived to sign off on the LCO paperwork. Exiting LCOs. Pre-job concluded.
1954 Initiating a drum movement from transportainer to 50-69.
1955 Late entry - at 1917, operators entering 50-69 to resume operations on drum # 5816342. JC
2008 Drum movement into 50-69 complete.
2103 Initiating a drum movement from 50-69 to a transportainer.
2130 Drum movement out of 50-69 complete JC 7-11-13
2203 Bagging off 1 daughter and 2 POC's JC 7-11-13, bagging on another ~~daughter~~ POC JC 7-11-13
2220 Late entry at 2145, and JC 7-11-13 an operator walking down the hallway hit his (R) shoulder on the corner of the BBS box on the wall. SOS, SOM notified of a long bed scratch. Entered EP-WCRR-RM-EOP-0309. JH also notified. JC
2225 DOE hotline called and a message was left by SOM.
2235 Bag off/on complete.
2253 Entering EP-WCRR-RM-AOP-0207 due to lightning.
2257 Beginning 30 minute wait time again due to another clap of thunder.
2300 Entered an FSR # 109073 for the BBS box to be relocated.
2305 Beginning 30 minute wait time again due to another clap of thunder.
2314 Beginning 30 minute wait time again due to another clap of thunder.
2316 Beginning 30 minute wait time again due to another clap of thunder.
2318 30 more for thunder.
2323 30 more for thunder.
2340 30 more for thunder.
2358 Bagging off 1 POC, bagging on a daughter.
0017 Bag off/on complete.
0036 Exiting EP-WCRR-RM-AOP-0207. Resuming outside operations.
Continued on next page JColeman

PROJECT NAME 7-11-13 DAYSHIFT NOTEBOOK NO.

0614 Reviewed the shift turnover checklist, reviewed approved and posted
incoming watchbill. Completed turnover with Nightshift SOM and
assumed the WCRR SOM position [signature]
0640 Completed attending the pre-job brief conducted by (Gilbert) the SOS.
Issues identified by the team include: Operators complained of heat in
the bulk area especially when wearing head vests. Requested the temperature
to be lowered - even 1-2 degrees, the dose rate on the SE-57 Neck Splits are
high, Time, distance and shielding was discussed. EPD requirements discussed
the team is low on flex-armor sleeves, it was suggested Tyvex sleeves be
used over the gauntlets. Shift Order WCRR-SM-13-003 R2 - Manual Drum Movements
is still in effect. One transfer out is scheduled to begin @.
0710 Completed daily FOD conference call in
0745 DOE/FR and DOE facility representative (SR) arrive to perform assessment of 50.69 Functions
0801 Upon performing a move out of 7 drums from inside the facility, operations bagged
on SBLG 394
0845 DOE exited the operations center and their concern was in their opinion
the drains require cleaning and the truck bay floor drain looks clogged.
Late Entry for 0846 0830 One operator reported nausea after opening plastic new bag on bags, Notification
was made to the ES/IH, operator is sitting in fresh air and ES/IH is
monitoring.
0850 The transfer out of 12 drums to NTS/EG is completed. No issues noted.
Upon review of the transfer in, one SEDs document was missing for drum
93752 - Notification was made to Production Control, they are acquiring SEDs.
0922 Notification was made to the Operations Center by F97 that drum SBLG 084 was
being dropped.
1011 With Ewmo support the SOM conducted walkdown of portable light in the parking lot
at WCRR, the diesel fuel was dripping onto the catch pan - Notification was
made to Craft supervision to change out and replace the catch pan. The OCC
was also notified.
1025 Operations initiated bagging off SBLG 394 and bagging on SBLG 305
1032 Bag on and off were reported completed
1215 Completed the daily facility update to the PM/OM.
1305 The crafts repaired the diesel generator leak on the light power plant, they requested
laborers to replace the catch pan and kitty litter.
1312 The nauseated operator was reported to be feeling better and the SOS on ES/IH
declared him ready and fit for duty. He entered 50.69 to support operations
1450 SOM notified OM that the SOM bumped his forehead in the parking lot outside controlled
area, noted as 1st AID notification made to OM.
1500 OCC entered EPWCRR-RA-EDP-009, RCTs SOS and DOE were notified. SOM exiting to
OCC meet with OM for First AID - band aid
1650 Notified by operator/SOS of WLG high high Pressure FE-002 flow and HVX-001
1652 Mixer Alarm acknowledged / SOM + OM suspend operations and ~~following~~ TAKE operators following
RCT instructions.
1658 The SOS, SOM, OM, FOD + DOE were all notified, also entering EP-WCRR-ARP-
0411, 405, 408, 409 and entering LCO 3.3.1 and 3.3.2 and 310.
(Continued on Next Page)
no further entries this page [signature]

SIGNATURE
READ AND UNDERSTOOD

1701 EMER Contacted and did not know of any power bumps
1703 Power dispatch contacted and did not know of any power bumps
1705 Generator did not kick on, and CSE was contacted.
1740 Operators entered to restart ventilation.
1744 Ventilation was restarted
1745 Inside Operator indicates ventilation start up failure
1751 Ventilation has been restarted.
1803 All Ventilation readings are normal, ERTMS LCOs.
1815 Conducted shift brief followed with incoming SOM Nightshift
1818 The nightshift SOM completed signing off the watchbill.
1820 It was discussed by OM, RP-1, SOM, and CSE, that potentially the filters require changing in the WCA glovebox, this will be scheduled Monday AM.
1825 Secured the SOM position for Day shift [illegible]

No further Entries this Page
[illegible]

PROJECT NAME 7/11/13 Night Shift NOTEBOOK NO.

1825 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1845 Attended pre job brief conducted by SOS. Discussed current condition of facility and path forward to resume operations. Shift order WCRR-SH-13-003 R2 Manual Drum Movements still in effect. At end of shift facility needs to be in Cold for maintenance.

1850 Completed close out of LCO entry paperwork

2008 Completed movement of drums into 50-69 for denesting / processing

2130 Drum movement out of 50-69 to transportainers complete.

2145 Notified of operator walking down hallway 50-69 hit his right arm on BBS mail box resulting in a 2 inch scratch barely producing blood. Entered into EP-WCRR-RM-EOP-0309 for minor injury. Notified OM and ES-TH. Placed padding on sharp corners of metal box.

2225 Left message on DOE Hotline of minor injury.

2230 Notified by SOS that drum being processed is a nitrate salt drum

2253 Entering EP-WCRR-RM-AOP-0207 Severe Weather due to lightning. Implementing 30/30 rule

2300 OCO initiated an FSR to have the BBS box relocated.

2305 Restarting 30 minute clock for lightning.

7/12/13 0036 Exited EP-WCRR-RM-AOP-0207. Resuming outside operations

0210 SOS identified leakage of water into Arctic building from roof caused by rain. FSR submitted.

0450 Completed all bag offs related to parent drum 5816342. Bagged on 94010 to reprocess using Kitty Litter. Drum had initially been processed w/ Waste Lock absorbant instead of Kitty Litter.

0525 Completed all bag offs. Production for this shift is 1 parent, 3 daughters and 2 POC's on the 7/12/13 2330-0600 shift. Weekly totals are 15 parents processed resulting in 24 daughters and 6 POC's

0611 Review of inside rounds had item #37 WCG vacuum reading -0.52 inches wc Per directions in Section 6.14 Filter change is scheduled for Monday 7/15/13

0624 Completed Mode Change: WCRR Yard - Warm 50-69 is Cold.

0632 Secured night shift SOM position - turned over to day shift SOM.

18
7-12-13

No further entries this page

SIGNATURE RC DATE 7/12 20 13
READ AND UNDERSTOOD DATE 20

7/11/13 WCRR SOS LOG BOOK

0600 Assuming SOS position.

0615 Conducting shift brief talked about heat inside and staying Hydrated

0635 Shift brief complete

0645 Operators entering Facility.

0800 starting movement out of 50-69

0801 Bagging on S816394

0803 Bag off/on complete

0819 Operators lowering access gates

0834 movement complete

0855 Operator exiting 50-69 He is feeling ill IH will evaluate operator.

1025 Bagging off S816394 Bagging on S816305

1032 Bag on/off Complete.

1125 Lowering access gates for unloading transport vehicale

1330 Bagging off bagging on S816304

1333 Bag off/on Complete

1500 Starting Rounds.

1502 bagging off daughter.

1550 late entry At 1500 notified sum bumped his head entered EP WCRR EOP-209 sum transmitted to ocwed

1607 Bagging off bagging on S816342

1631 Reviewed Inside And outside Rounds.

1650 ~~Operators~~ Operators Inside Notified of WCG high high pressure FE 002 low and H09-001

1652 mizer Alarm acknowledged Suspended operations, operators Following PIT Instruction.

1656 ~~Breathe~~ mizer Acknowledged

1658 entering EP-WCRR-AKP-0411, 405, 408, 409 and entering LCO 3.3.1 And 3.3.2 And 3.3.6

1740 Operators Monitoring to restard ventilation

1744 Ventilation Restarted.

1746 Ventilation Start up failure

1751 Ventilation restarted.

1803 Ventilation numbers normal

1820 Sos turn over with clayton Mullins

7/11/13 WCRR SOS Log Book

1815 Assuming SOS position. CM

1820 Starting Pre-Job, discussed alarms and potential for alarms overnight due to low flow rate on the outlet HEPA's of the WCG. Also having to go to cold at end of shift

1851 Pre-~~Job~~ cm 7-11-13 Job complete.

1855 Late entry @ 1842 Exiting LCO's. CM

1954 Starting movement into 50-69.

2008 Movement into 50-69 complete.

2020 Operators inside state that suction in WCG feels ~~non~~ cm 7-11-13 weak almost like there is no suction. Will continue to keep an ~~ego~~ cm 7-11-13 eye on that. Also told by day shift operator that drum lift making grinding sound, will perform inspection at most convient time. Inner roll up door in high bay when closing ended up stuck on one side about 5ft. off the ground, after raising it up a foot it closed properly.

2103 Starting movement out of 50-69.

2130 Move out complete.

2203 Bagging off 1 daughter and 1 POC, bagging on a POC.

2220 Late entry @ 2145 an operator bumped into the BBS box in the hallway, causing his ® shoulder to scratch. SOM and IH notified, entering EP-WCRR-RM-EOP-0309

2225 SOM left message on DOE hotline.

2235 Bag off/on complete

2253 Entering EP-WCRR-RM-AOP-0207 because of lightning.

2300 FSR submitted #109073 to have BBS box relocated.

2358 Bagging off 1 POC, bagging a daughter on.

0017 Bag off/on complete.

0030 Exiting EP-WCRR-RM-AOP-0207.

0210 FSR submitted #109074 for leaks in artic roof.

0243 Bagging off 1 daughter and bagging on another daughter

0258 Bag off/on complete.

Continued on ~~AM~~ cm 7-11-13 ~~Next~~ cm 7-11-13 Next Page CMullis

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0084
Examination Date:	7/16/2013
Waste Container ID:	94003
Video/Audio Recorded Media Number:	LA-HERTR-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:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 219.5 kg Tare Wt.: 33.4 kg Net Wt.: 186.1 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: 94003

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal, metal can

AM:

OM: Scrap lead

OI:

C: Wire brush

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):	2.7
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.3
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	169.1
Soils (S):	
Total WMP Weight:	186.1

CCP Radiography Data Sheet

Waste Container ID: 94003

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:

Benito Maestas		7/16/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94003	Count Sequence Number:	23239
Operator:	D3PW2DK1\operator		
Assay Start:	7/17/2013 10:09:06 AM		
Description 1:	1LANDA1810		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 186.0 kg	Net:	186.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.940 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: 23239
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 94003

Batch Number: 1LANDA1810
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/17/2013

Net Weight	186000.0 g		
Pu mass	1.22E+001	+-	2.99E+000 g
TRU Alpha Activity	5.74E+000	+-	2.65E+000 Ci
TRU Activity Concentration	3.09E+004	+-	1.42E+004 nCi/g
Pu-239 Equivalent Activity	5.79E+000	+-	2.65E+000 Ci
Pu-239 FGE	1.02E+001	+-	2.47E+000 g
Decay heat	1.90E-001	+-	8.84E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.97E-002	5.69E-005	1.26E-005	3.23E-006
PU238	1.09E-002	1.89E-001	4.66E-002	7.76E-005
PU239	1.00E+001	6.32E-001	1.55E-001	2.59E-004
PU240	7.38E-001	1.70E-001	4.17E-002	6.95E-005
AM241	1.37E+000	4.75E+000	2.64E+000	6.34E-002
PU241	2.98E-002	3.10E+000	7.62E-001	1.27E-003
PU242	1.35E+000	5.37E-003	1.32E-003	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.35E-007
U233	<LLD	<LLD	0.00E+000	6.13E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.78E-006
U238	<LLD	<LLD	0.00E+000	3.40E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-22-13

ITR: [illegible] Date: 7-23-13

Automated Independent Technical Review

Count Sequence Number: 23239 Batch Number: 1LANDA1810
Counter ID: MCS HENC #1
Container ID: 94003
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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-52,42,53
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: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94003**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	212.88	
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\130718c\
Data File : 94003.D
Acq On : 18 Jul 2013 4:19 pm (#1); 18 Jul 2013 4:17 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: Jul 18 16:23:19 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	1.900	GC1	60725m	212.88	ppmv	

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

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S816692

S816692

Container Profile 747126

File Options Reports Help

S816692

747126	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

S816692

- S816692
  - LA00000068565
  - LA00000068581
  - LA00000068516 — EMPTY

Task History

Transfer Details

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

Working Copy
Date: 10-30-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816692

6.2[4] Date Processed: 10-30-13

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: (> 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: Adam Escovia [signature] Z 270701 10-30-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5816692

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 413.2 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) 413.2 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.: 5816692

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68581	68565	N/A	
10.1[4]	Daughter Drum Filter No.	LM-313	KM-765		
10.1[4]	Daughter Drum Bag Filter No.	L-11516	L-6734		
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	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:	Lead shielding	lead shielding	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	See comments	N/A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	75%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter Stubout Bags	Kitty Litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5816692

Comments: Nitrate Salts, Plastic, Kitty Litter, Lead Shielding, One poly liner lid, Stub out Bags,

11.1[1] Performed By: Adam Segovia | [signature] | D76702 | 10-31-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins | [signature] | 124007R | 10/31/13 0604
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-2-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238367
Manufacture Date: 2013

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

	Filtered Vent	2-in. Bung
M&TE No.:	100206	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.: D13
Serial No.: JL 1884
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: JOE QUINTANA / Joe Q 239987 10/2/13
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: JOE QUINTANA / Joe Q 239987 / 10/2/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / CA 240092 / 10/31/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68516

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +/-3% cw +/-6% ccw

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

Performed By: Adam Segovia, [signature] 376202 10-31-13
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: 019069
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 177.6 lb

Comments: N/C

8.1[1] Performed By: Adam Segovia, [signature] 376202, 10-31-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins, [signature] 240091, 10/31/13
Supervisor or designee (print) Signature Z # Date

10-24-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 685665

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 3cPVC 1.5-2SPVC
Serial No.: L-6734
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:	40-120	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 / [signature] / 267129 / 10-24-13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: BG 10-24-13 ~~KM-765~~ C19DS
Serial No.: KM-765
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: 019665

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.: 68565

Comments: N/C

5.[35] Performed By: ADAM SEGOVIA (Operator (print)) [signature] (Signature) 276702 (Z #) 10-31-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) [signature] (Signature) 240092 (Z #) 10/31/13 (Date)

Working Copy
Date: ~~10-24-13~~ 10-24-13 10-31-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68565

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

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-90
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 Sosovia (Operator (print)) (Signature) 276200 (Z #) 10-31-13 (Date)

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
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.: 68565

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 289.0 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: Adam Scovia (Operator (print)) | Signature | 276702 (Z #) | 10-31-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) | Signature | 240092 (Z #) | 10/31/13 (Date)

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68581

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5 - 2SPVC
Serial No.: L-11516
Manufacture Date: 2013

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

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

Performed By: MICHAEL MONTOYA [signature] 191352 / 10/24/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 QS
Serial No.: LM-313
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.: 68581

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA [signature] 191352 10/29/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [signature] 240092 10/31/13
Supervisor or designee (print) Signature Z # Date

Working Copy Date: ~~10-24-13~~ 10-30-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68581

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

M&TE No.: 038369
Cal. Expiration Date: ~~10-24-13~~ 12-18-13
Range in ft-lb: 16-80
Tolerance: +/-3% cw +/-6% ccw

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

Performed By: Adam Segovia (Operator (print)) (Signature) (Z #) 10/30/13 (Date)

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
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.: ~~5816692~~ 68581 (RS) 9/23/14

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 415.0 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: Adam Segovia / [signature] / 276702 / 10-31-13
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240092 / 10/31/13
Supervisor or designee (print) / Signature / Z # / Date

Inserted SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S816692 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 403.515
Total PE-Ci Activity: 2.85E+00 Equivalent Combustible PE-Ci: 1.07E+00
Total Fissile Gram Equivalents: 3.05E+01 Total Surface Dose Rate (mrem/hr): 0
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 ~6 gallon of free liquid throughout drum and at the bottom.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 273 lbs. and generator data shows 6 items of nitrate salts with weights ranging from ~17-145 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, chromium, mercury. Equal from liquid

Performed By: Johnny Swallard (IHS Representative (Print)) | Signature | Z# | 7-31-13 (Date)

LTP Engineering

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

Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | 112609 (Z#) | 8/15/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Extra

Performed By: G ML (TRU Operations (Print)) | Signature | 149235 (Z#) | 8/12/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use heavyweight gloves during processing. Use tools when possible to handle waste.

Approved By: Jose Jerez (OM or designee (Print)) | Signature | 221452 (Z#) | 8-12-13 (Date)

Discardable Waste Log Sheet

DrumID: 010966

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS412FB	15.45	NITRATE SALTS		1.12	52	5/11	
2	IXFS413F1	13.41	NITRATE SALTS		1.12	52	5/11	
3	IXFS414F1		NITRATE SALTS		1.84	54	5/11	
4	IXSF415F1	21.59	NITRATE SALTS		11.56	52	5/11	
5	IXFS416F1	65.9	NITRATE SALTS		10.09	52	5/11	
6	IXFS417F1	7.73	NITRATE SALTS		5.97	52	5/11	
		124.08 kg						

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/11/13

Container No. (5.[1])	S816692					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	073					
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])	594.18 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)), Susan J. Ramsey (Signature), 100681 (Z#), 5/20/13 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130411c\
Data File : S816692.D
Acq On : 11 Apr 2013 12:11 pm (#1); 11 Apr 2013 12:10 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL THROUGH UNOBSTRUCTED 073 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 12:23:12 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	2076291	206.00 ppm	0.00
15) Chlorobenzene-d5	5.939	117	1801458	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.220	GC1	146812m	594.18 ppm	

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

Vocgas.m Thu Apr 11 12:23:21 2013

10-30-13

1803 Assuming WCRR operations center. - Kleeman

1815 Pre-job and turnover with morning shift being conducted. Safety topic - Don't wear dark safety glasses in the dark performing duties or even walking around outside.

1858 Pre job concluded.

1918 Operators entering 5069 to resume operations.

1945 RCRA inspections have been completed for today.

~~2030~~ JC 10-30-13

unexpected condition 2012 Operators notifying ops center of an ~~unidentified~~ JC 10-30-13 unidentified liquid found on the mat of the work station at station 2. SOS, SOM and IH notified. Operator 54 states that he was getting ready to get onto the WCG to begin to sweep the floor of the WCG when he noticed the drop of liquid about the size of a quarter. He states that he took a hold of the glove and pulled out slightly and another drop of liquid fell onto the mat on the work station. Per RCT's, all are performing a controlled exit.

2030 SOM notified OM.

2032 Discussion being held regarding path forward. There are currently no elevated CAMS or alarming CAMS. IH will be entering with an RCT to determine if there are any VOC's associated with the liquid. RCT's will mass clean the floor for contamination.

2109 RCT and IH entering 5069 to see if IH can identify any VOC's.

2140 IH states that the liquid had already evaporated and he was not able to evaluate it. The RCT's will take smears for precautionary measures.

2231 Per RCT, all smears showed no activity.

2234 Operators entering 5069 to resume operations.

2324 Bagging off 1 daughter, bagging on 58166 92

2347 Bag off 1 OK complete.

0000 ~~+20~~ JC 10-31-13 Operators out for lunch.

0111 Operators back from lunch.

0305 Bagging off 1 daughter, bagging on another daughter.

0310 Beginning outside rounds.

Continued on next page. Kleeman

10-31-13 Continued from previous page Koleman

0321 for JC 10-31-13 Bagoff/on complete.

0338 Outside rounds complete.

0423 Beginning inside rounds.

0440 Item #43 is OOS, okay to proceed per CSE documentation

0443 Inside rounds complete.

0503 Both rounds reviewed by SOS.

0505 Bagging off 1 daughter, bagging on S824208.

0539 Bag off/on complete.

0558 Air quality has arrived to perform weekly stack monitoring.

10-31-13 0605 Being relieved by CCO, Clarissa Velarde, Koleman

No further entries this page

10/30/13 Night Shift continued

2347 Completed all bag offs for parent # 5832320 (2 daughters and 1 POC total). Bagged on 5816692.

10/31/13 0000 Operators breaking for lunch.

0111 Resuming operations.

0321 Completed bag off of 1 daughter - continuing to process

0539 Completed bagoffs for parent # 5816692 (2 daughters total) Bagged on 5824208.

10/31/13 0610 Relieved by J. Gundagnol. as WCRR SOM.

No further entries this page

PAGE	ENTRY	DATE
88	10/30/13 WCRRF SOS Log Book	
89	1803 Assumed SOS position. CA	
90	1816 Starting Pre-Job with brief from day shift, also discussed	
91	wearing proper PPE. Discussed the shift orders.	
92	1848 Pre-Job complete.	
93	2012 Operators notify that an unidentified liquid has been found	
94	on the work platform a station 2. SOM and IH have also been	
95	notified. Tech. S4 states ~~to 10-30-13~~ cm that he was attempting to clean	
96	station 2 gloves, prior to use, when he noticed the drop of liquid,	
97	about the size of a quarter, on the work platform. He states that	
98	he took ahold of the glove, right hand station 2, and pulled it out	
99	slightly he noticed another drop of liquid fell onto the platform.	
100	All operators and RCT's performing a controlled exit.	
101	2030 SOM notified OM.	
102	2032 Discussion with all personnel regarding path forward. Currently	
103	there are no elevated CAM's or alarming CAM's. Personnel to	
104	re-enter 50-69 after RWP brief will be 2 RCT's, IH and 1	
105	operator.	
106	2109 RCT's, operator, and IH entering 50-69.	
107	2140 IH states that the liquid has evaporated, there fore, he was	
108	unable to evaluate it. RCT's taking smears as a precaution.	
109	2231 RCT's state that all smears NDA.	
110	2234 Operators resuming operations.	
111	2324 Bagging off daughter, bagging on 5816692.	
112	2347 Bag off/on complete.	
113	0304 Bagging off 1st daughter, bagging on a 2nd.	
114	0310 Bag off/on complete.	
115	0503 Signed off on the rounds.	
116	0505 Bagging off 2nd daughter, bagging on 5824208.	
117	0536 Bag off/on complete.	
118	0607 Turning over SOS position to Gilbert Martinez. CA 10/31/13	
119		
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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-RTR2-13-0123
Examination Date:	11/5/2013
Waste Container ID:	68565
Video/Audio Recorded Media Number:	LA-RTR2-13-0123 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.: 131.5 kg Tare Wt.: 33.4 kg Net Wt.: 98.1 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: 68565

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

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):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	82.6
Soils (S):	
Total WMP Weight:	98.1

CCP Radiography Data Sheet

Waste Container ID: 68565

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	11/5/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68565	Count Sequence Number:	16675
Operator:	DCLTD231\Operator		
Assay Start:	11/5/2013 2:27:57 PM		
Description 1:	2LANDA1237		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 98.1 kg	Net:	98.1 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.730 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:	16675	Batch Number:	2LANDA1237
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68565	Analysis Date:	11/5/2013

Net Weight	98100.0 g		
Pu mass	4.43E+000	+-	9.20E-001 g
TRU Alpha Activity	4.10E+000	+-	2.06E+000 Ci
TRU Activity Concentration	4.18E+004	+-	2.10E+004 nCi/g
Pu-239 Equivalent Activity	4.11E+000	+-	2.06E+000 Ci
Pu-239 FGE	4.20E+000	+-	9.18E-001 g
Decay heat	1.36E-001	+-	6.84E-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	4.56E-007
U233	<LLD	<LLD	0.00E+000	4.18E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.32E-006
NP237	5.48E-002	3.86E-005	7.35E-006	2.29E-006
PU238	4.05E-004	6.93E-003	1.81E-003	4.96E-004
U238	<LLD	<LLD	0.00E+000	1.13E-005
PU239	4.16E+000	2.58E-001	5.69E-002	1.85E-002
PU240	2.66E-001	6.04E-002	1.58E-002	4.33E-003
AM241	1.10E+000	3.78E+000	2.06E+000	3.29E-002
PU241	5.09E-003	5.24E-001	1.37E-001	3.76E-002
PU242	8.87E-004	3.51E-006	9.19E-007	0.00E+000
AM243	3.66E-005	7.31E-006	1.53E-006	2.94E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/7/13

ITR: Jim Barton Date: 11/11/13

Automated Independent Technical Review

Count Sequence Number: 16675 Batch Number: 2LANDA1237
Counter ID: HENC #2
Container ID: 68565
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/5/2013

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.	OK
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	OK
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	OK
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	OK

Comments	Disposition
Section 3 - Data Combiner Analysis Override enabled; 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.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 11/7/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68565**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

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\131115c\
Data File : 68565.D
Acq On : 15 Nov 2013 1:06 pm (#1); 15-Nov-13, 13:06:02 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 13:14:25 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	3.545	96	4288259	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.851	117	3373303	177.50 ppmv	0.00

Target Compounds	Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0125
Examination Date:	11/7/2013
Waste Container ID:	68581*
Video/Audio Recorded Media Number:	LA-RTR2-13-0125 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 2 layers
Volume Utilization Percentage:	100 %

CCP Radiography Data Sheet

Waste Container ID: 68581

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):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	147.6
Soils (S):	
Total WMP Weight:	155.1

CCP Radiography Data Sheet

Waste Container ID: 68581

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	[signature]	11/7/2013.
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68581	Count Sequence Number:	16700
Operator:	DCLTD231\Operator		
Assay Start:	11/13/2013 2:04:18 PM		
Description 1:	2LANDA1239		
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:	100.0 %
Density:	0.750 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: 16700
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 68581

Batch Number: 2LANDA1239
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 11/13/2013

Net Weight	155000.0 g	
Pu mass	1.43E+001 +-	2.90E+000 g
TRU Alpha Activity	6.29E+000 +-	2.84E+000 Ci
TRU Activity Concentration	4.06E+004 +-	1.83E+004 nCi/g
Pu-239 Equivalent Activity	6.31E+000 +-	2.84E+000 Ci
Pu-239 FGE	1.34E+001 +-	2.89E+000 g
Decay heat	2.07E-001 +-	9.44E-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	5.59E-007
U233	<LLD	<LLD	0.00E+000	6.25E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.11E-006
NP237	9.04E-002	6.37E-005	1.23E-005	3.24E-006
PU238	3.23E-003	5.52E-002	4.89E-002	1.82E-003
U238	<LLD	<LLD	0.00E+000	1.47E-005
PU239	1.33E+001	8.25E-001	1.79E-001	2.72E-002
PU240	9.38E-001	2.13E-001	5.02E-002	7.02E-003
AM241	1.52E+000	5.20E+000	2.84E+000	5.52E-002
PU241	1.20E-002	1.24E+000	2.82E-001	4.09E-002
PU242	1.96E-002	7.74E-005	3.78E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 11-15-13

ITR: [signature] Date: 11/18/13

Automated Independent Technical Review

Count Sequence Number: 16700 Batch Number: 2LANDA1239
Counter ID: HENC #2
Container ID: 68581
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/13/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	OK
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings. - The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	OK
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	OK
Cosmic Ray Rejection Analysis complete with warnings. - The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	OK
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.

Comments	Disposition
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 11/15/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68581**

BDR Number: **LA13FG2118**

Sampling Date: **11/21/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	102.67	
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\131121c\
Data File : 68581.D
Acq On : 21 Nov 2013 10:35 am (#1); 21-Nov-13, 10:35:12 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 21 10:44:04 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.584	96	4564836	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.881	117	3550665	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.618	GC1	772m	102.67	ppmv	

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

S816768

S816768

Container Profile 752937

File Options Reports Help

S816768

752937	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

S816768

S816768
- LA00000069620
- LA00000069519
- LA00000069604
- LA00000069614 – EMPTY

Task History

Transfer Details

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

Working Copy
Date: 4-22-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816768

6.2[4] Date Processed: 4-22-14

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 BG 4-
(Initial and Date)
in WCG: (SAC 5.10.1.7.1)

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] / 2267129 4-22-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5816768

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 439.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 105.0 lb ☐ N/A

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 544.6 lb

6.2[7] (S) 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.: 5816768

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69620			
10.1[4]	Daughter Drum Filter No.	KM-322		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10218			
10.1[4]	Daughter Drum Purchase Order No.	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	BOP		
	Model No.	3CRUC1.5-25PVC	3CRUC1.5-25PVC		
	Serial No.	L-10180	L-10220		
	Date of Manufacture	5/13	5/13		
10.2[5]	POC ID No	69519	69604		
10.2[6]/10.2[7][B]	POC Item Description	NITRATE SALTS	NITRATE SALTS		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BG 267129	BG 267129	N/A	
10.2[14]	POC Assembly Gross Weight (lb)	416.6	412.8		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000	1400		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A		
10.3[5][A]	Free Liquid Volume/Units	5 GALLONS			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.		N/A		
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	BAGOFF STUBS, KITTY LITTER			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5816768

Comments: ROOM TRASH, PLASTICS, NEUTRALIZED 6 GALLONS OF LIQUID THAT WAS SOLIDIFIED, NITRATE SALTS, LEAD SHIELDING, HEX ARMOUR GLOVES.

11.1[1] Performed By: BRIAN GALLEGOS / [signature] 126129 4-22-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / [signature] 124092 4/25/14 1439
SOS or designee (print) Signature Z # Date/Time

Inspected Non-GG

1961 SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S816768 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 446.9535
Total PE-Ci Activity: 3.56E+00 Equivalent Combustible PE-Ci: 1.33E+00
Total Fissile Gram Equivalents: 3.50E+01 Total Surface Dose Rate (mrem/hr): 6
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 impenetrable object most likely lead liner and liquids in the drum

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~298 lbs. and generator data shows 8 items of nitrate salts with weights ranging from ~13-77 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 contain free liquids, no other hazards noted

Performed By: Tiffany Smallwood (IHS Representative (Print)) | Signature | 124159 (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: Use proper tools and PPE when processing, as well as correct amount of kitty litter, 3 to 1.

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

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use hexarmour gloves when processing. Ensure all liquids are remediated.

Approved By: Jose Perez (OM or designee (Print)) | Signature | 122452 (Z#) | 3/13/14 (Date)

Discardable Waste Log Sheet

DrumID: 010977.

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-418-F1	11.36	NITRATE SALTS		5.52	52	5/11	
2	IXFS-419-F1	6.82	NITRATE SALTS		1.34	52	5/11	
3	IXFS-420-F1	7.04	NITRATE SALTS		3.99	52	5/11	
4	IXFS-421-F1	31.8	NITRATE SALTS		8.09	54	5/11	
5	IXFS-422-F1	18.86	NITRATE SALTS		5.52	52	5/11	
6	IXFS-423-F1	18.64	NITRATE SALTS		4.22	52	5/11	
7	IXFS-425-F1	35.22	NITRATE SALTS		7.12	52	5/11	
8	IXFS-426-F1	5.9	NITRATE SALTS		1.79	52	5/11	
		135.64 kg						

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 5/28/13

Container No. (5.[1])	331676					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	C77					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	6.87 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	377.63 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero, 236973
CCP (Print) Z#

Reviewed By: Rick Jagielski, 266088
CCP (Print) Z#

Comments: N/C

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, 100681, 5/28/13
Waste Handling Operator (print) / Signature Z# Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S816768.D
Acq On : 28 May 2013 2:11 pm (#1); 28-May-13, 14:10:36 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NucFil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 28 14:21:31 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	3.522	96	3804367	201.25 ppmv	-0.05
15) Chlorobenzene-d5	5.864	117	3253361	177.00 ppmv	-0.04
Target Compounds					Qvalue
1) Hydrogen	1.605	GC1	2684	377.63 ppmv	100
12) Benzene	3.209	78	93497	6.87 ppmv	99

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

vocgas.m Tue May 28 14:21:59 2013

4-22-14

0540 Assuming WCRR operation center. KCreeman

0557 Beginning outside rounds.

0615 Pre-job being conducted by SOS. Beginning inside rounds. Outside rounds complete. Brief to Shift order WCRR-SH-14-004.

0637 Inside rounds complete. Pre-job completed.

0653 Both rounds reviewed by SOS.

0659 Mode changed to operations in WCRRF yard and 50-69.

0812 Bagging on S816768. PPE check is Sat.

0825 Permission granted to lower the vehicle access gates to load the transfer vehicle for a shipment to Area G. Bag on complete

0911 Initiating a drum movement from transportainer to 50-69.

0916 Test execute complete. Surveillance 4.1.1 performed. Moving 1 drum into 50-69.

0929 Drum movement into 50-69 complete. Vehicle access gates restored. Transportainers secured. Shipment out complete.

0945 Initiating a drum movement of 6 drums from 50-69 to a transportainer.

1003 Denesting S870175 and bagging it on. Bagging off 2 POC's and 1 daughter.

1005 Drum movement out of 50-69 complete.

1030 Permission granted to lower the vehicle access to begin receipt of drums from Area G.

1058 Test execution complete. Surveillance 4.1.1 complete.

1110 Denesting and bag off/on complete.

1244 PPE check is Sat. 2nd crew continuing to process S870175. Per RCT, one item encountered is 27 R on contact gamma, 5 mR neutron, 60 second time limit per operator at this dose rate.

1256 Bagging off 1 daughter, 1 POC, continuing to process.

1334 Bag off/on complete. Vehicle access gates restored. Transportainers secured.

1413 JC 4-22-14. Bagging off 1 daughter and bagging on S843672.

1432 Bag off/on complete

1433 Moving in 2 LLW drums into 50-69 (65211 and 65216)

1448 Movement in complete

Continued on next page. KCreeman

Int. Daughter 68998

4-22-14 Continued from previous page. Coleman
1449 Test execute complete. Surveillance 4.1.1 Complete
1450 Beginning inside rounds.
1512 Inside rounds complete.
1543 Beginning outside rounds.
1550 Bagging off 2 daughters, empty, and placing pot cover on
1600 Outside rounds complete.
1631 Bag off complete. Everything is in a safe configuration.
1640 Both rounds reviewed by SOS.
1642 Mode change complete. Warm standby in WCRRF yard and 50-69.
4-22-14 1645 End of day. CCO position secured. Coleman

No further entries this page

4-22-14 WCRR SOS LOG BOOK

0600 Assuming SOS Position

50-69 0615 Conducted shift brief discussed drum to process will
the be high PE-CI may need to rotate operators. starting
Rounds Briefed to shift order

0632 Concluded shift Brief

0653 Reviewed Inside And outside Rounds

0659 Mode change Complete WCRRF In operations

0812 Bagging on S816768

0825 Starting shipment to Area G. Bag on Complete.

0911 Initiating drum movement from Transportainer

0929 drum movement Complete shipment complete

0945 starting movement out of 50-69 6 drums

1003 Denesting S870175 Hird bagging It on Bagging off

at working 1005 Move out complete

1030 starting movement In from Area G

1110 Denesting bag off / on complete

1244 Per RCT on Item is 27 R on contact will be rotating
operators out every 60 sec.

1256 Bagging off 1 daughter bagging on Poc

1334 Bag on/off complete shipment complete.

1413 Bagging off 1 daughter bagging on S843672

1432 Bag on/off complete

1437 Moving In 2 LLW Drum's 65211 And 65216 will need to
open and see what It consist of

1448 Movem In complete

1450 Starting Rounds

1508 Turning over Position to Clayton Mullins

1509 Assuming SOS position.

1550 Bagging off 2 daughters, placing port cover on.

1631 Bag off complete.

1640 Signed off on the rounds

1642 Mode change complete, WCRRF yard and 50-69
are now in Warm Standby.

4-22-14/1644 Securing SOS position.

No Further Entries
on this Page

4-22-14 WCRR SOM

0600 Reviewed logs and assumed the WCRR SOM position [illegible]

0640 Completed attending the pre-job brief conducted by the SOS (Gilbert). The safety message was stress and methods to control stress. There is a transfer in and a transfer out scheduled today. The shift order in effect was briefed and personnel signed the roster. RP-1 - discussed ALARA principals, the next drum bagged out is the Hi PECi drum SP-36 - 5870175. Operators were reminded to ensure LLW generated contains container ID, and weights and is called out to the OCC and production control.

0659 Mode Changes 50/69 and cpud transition from warm/warm to Operations/Operations

0715 Completed the daily phone call to AREA G SOM updating POD status.

0716 Per OM all personnel are to complete required reading course #55769 Operators are to log on to D-Train, also the OCC will have a copy and roster at the Operations Center for those entering the Yard to read and sign.

0812 Inside Operations initiate bag on of 5816768.

0825 Outside operations initiate transfer for inspection to be performed by P&T for the drums going to AREA G

0916 Outside Operations initiate a movement in of 1 drum 5870175 SP-36.

0929 The movement into 50/69 is completed, and the transfer to AREA G/transfer vehicle is complete - 19 drums total.

0932 Outside Operations initiate a transfer from 50/69 to the transportainers 6 drums total

1003 Inside Operations initiate bag off of 2 - POCs and 1 daughter and de-nesting of 5870175 - Hi Pe. drum.

1005 Outside Operations complete the movement of 6 drums to the transportainer.

1014 Reviewed and approved WO# 00468361-04 - Grounds Maintenance to allow cutting of weeds in the parking lot and outside the fence - Not in yard.

1030 Outside operators request and obtain permission to lower the vehicle access gates to receive the transfer of 6 drums from AREA G

1110 Inside Operators report bag off an on completed.

1125 Inside Operators report they have a POC item.

1139 Late Entry for 1048 hours, operators indicate the Forklift charging station (only 1) is noted to not be charging. The breaker may not be set. Notification was made to crafts.

1240 Completed the noon phone call with SOMs, OM, PM. and others.

1244 The second crew enters 50/69 to continue processing Hi MAR drum. One item is 27R on contact and gamma was 5mr. Time limitations are set for Operators per RWP

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0041
Examination Date:	4/28/2014
Waste Container ID:	69519
Video/Audio Recorded Media Number:	LA-RTR2-14-0041 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 E.R. 5-7-14 E.R. 5-7-14 E.R. 5-7-14 NCR No.: ~~N/A~~ NCR-LANL-0605-14 NCR No.: ~~N/A~~ N/A 5-7-14

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.: 189.0 kg Tare Wt.: 145.1 kg Net Wt.: 43.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes E.R. 5-7-14 Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 69519

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	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):	7.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	36.9
Soils (S):	
Total WMP Weight:	43.9

CCP Radiography Data Sheet

Waste Container ID: 69519

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.

NCR-LANL-0605-14 E.R. 5-7-14

RTR Operator:

Print Name	Signature	Date
Eddie Rios	Eddie Rios	4/28/2014

5-7-14

NDA 2000 Assay Report

Item Information

Item ID:	69519	Count Sequence Number:	17135
Operator:	DCLTD231\Operator		
Assay Start:	4/28/2014 1:35:58 PM		
Description 1:	2LANDA1284		
Description 2:	POC 189.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 43.9 kg	Net:	43.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.816 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: 17135
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 69519

Batch Number: 2LANDA1284
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 4/28/2014

Net Weight	43900.0 g		
Pu mass	1.98E+001	+-	1.47E+001 g
TRU Alpha Activity	1.69E+001	+-	1.07E+001 Ci
TRU Activity Concentration	3.85E+005	+-	2.45E+005 nCi/g
Pu-239 Equivalent Activity	1.69E+001	+-	1.07E+001 Ci
Pu-239 FGE	1.87E+001	+-	1.46E+001 g
Decay heat	5.58E-001	+-	3.57E-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	9.79E-007
U233	<LLD	<LLD	0.00E+000	9.19E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.80E-006
NP237	1.60E-001	1.13E-004	2.29E-005	5.02E-006
PU238	1.80E-003	3.08E-002	2.46E-002	9.58E-004
U238	<LLD	<LLD	0.00E+000	2.48E-005
PU239	1.86E+001	1.15E+000	9.07E-001	3.58E-002
PU240	1.19E+000	2.69E-001	2.16E-001	8.38E-003
AM241	4.50E+000	1.54E+001	1.07E+001	2.32E-001
PU241	2.22E-002	2.28E+000	1.83E+000	7.11E-002
PU242	3.96E-003	1.56E-005	1.25E-005	0.00E+000
AM243	4.19E-004	8.37E-005	1.73E-005	6.86E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 4-30-14

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

Automated Independent Technical Review

Count Sequence Number: 17135 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69519
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 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.
Curium/Californium Neutron Analysis complete with warnings.	
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. 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.	

Comments	Disposition
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
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:	69604
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.: 187.5 kg Tare Wt.: 145.1 kg Net Wt.: 42.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 69604

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
AM:	
OM:	
OI:	
C:	
R:	
XPM:	
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid, Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	42.4
Soils (S):	
Total WMP Weight:	42.4

CCP Radiography Data Sheet

Waste Container ID: 69604

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:            69604              Count Sequence Number:  17131
Operator:           DCLTD231\Operator
Assay Start:        4/28/2014  10:42:29 AM
Description 1:      2LANDA1284
Description 2:      POC 187.5
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gal Drum
Weight:             Net:        42.4   kg        Net:    42.4 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                        0.809 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
```

06

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 17131
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 69604

Batch Number: 2LANDA1284
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 4/28/2014

Net Weight	42400.0 g	
Pu mass	4.57E+000 +-	3.29E+000 g
TRU Alpha Activity	1.13E+001 +-	7.60E+000 Ci
TRU Activity Concentration	2.67E+005 +-	1.79E+005 nCi/g
Pu-239 Equivalent Activity	1.13E+001 +-	7.60E+000 Ci
Pu-239 FGE	4.34E+000 +-	3.28E+000 g
Decay heat	3.75E-001 +-	2.53E-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	8.43E-007
U233	<LLD	<LLD	0.00E+000	7.82E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.39E-006
NP237	1.17E-001	8.22E-005	1.66E-005	2.12E-006
PU238	5.82E-004	9.96E-003	7.80E-003	1.10E-003
U238	<LLD	<LLD	0.00E+000	2.13E-005
PU239	4.26E+000	2.64E-001	2.04E-001	2.91E-002
PU240	2.98E-001	6.77E-002	5.31E-002	7.46E-003
AM241	3.20E+000	1.10E+001	7.60E+000	1.99E-001
PU241	5.89E-003	6.07E-001	4.76E-001	6.68E-002
PU242	1.37E-003	5.42E-006	4.25E-006	0.00E+000
AM243	7.79E-004	1.56E-004	3.18E-005	5.81E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 4-30-14

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

Automated Independent Technical Review

Count Sequence Number: 17131 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69604
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 is less than n-sigma * the correction factor error.	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-52,54.
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 Clemmer Date: 4-29-14

08

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0041
Examination Date:	4/28/2014
Waste Container ID:	69620
Video/Audio Recorded Media Number:	LA-RTR2-14-0041 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.: 170.5 kg Tare Wt.: 33.4 kg Net Wt.: 137.1 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: 69620

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic liner lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
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):	112.1
Soils (S):	
Total WMP Weight:	137.1

CCP Radiography Data Sheet

Waste Container ID: 69620

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	4/28/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69620	Count Sequence Number:	17136
Operator:	DCLTD231\Operator		
Assay Start:	4/28/2014 2:17:52 PM		
Description 1:	2LANDA1284		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 137.0 kg	Net:	137.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.730 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:	17136	Batch Number:	2LANDA1284
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69620	Analysis Date:	4/28/2014

Net Weight	137000.0 g		
Pu mass	9.60E+000	+-	1.92E+000 g
TRU Alpha Activity	2.00E+001	+-	1.05E+001 Ci
TRU Activity Concentration	1.46E+005	+-	7.67E+004 nCi/g
Pu-239 Equivalent Activity	2.00E+001	+-	1.05E+001 Ci
Pu-239 FGE	9.11E+000	+-	1.91E+000 g
Decay heat	6.64E-001	+-	3.49E-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	1.23E-006
U233	<LLD	<LLD	0.00E+000	1.17E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.69E-006
NP237	2.85E-001	2.01E-004	3.80E-005	6.36E-006
PU238	1.22E-003	2.09E-002	5.35E-003	1.80E-003
U238	<LLD	<LLD	0.00E+000	2.63E-005
PU239	8.95E+000	5.55E-001	1.18E-001	4.79E-002
PU240	6.27E-001	1.42E-001	3.64E-002	1.23E-002
AM241	5.63E+000	1.93E+001	1.05E+001	9.59E-002
PU241	1.24E-002	1.28E+000	3.26E-001	1.10E-001
PU242	2.98E-003	1.18E-005	3.01E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 4.30.14

ITR: _____ Date: 4.30.14

Automated Independent Technical Review

Count Sequence Number: 17136 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69620
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-52,54.
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

S823276

S823276

Container Profile 754044

File Options Reports Help

S823276

754044	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

S823276

- S823276
  - LA00000068752
    - LA00000069247 - EMPTY
    - LA00000069091 LANL
      - LASB50062
    - LA00000069191 - WCS
      - LASB50002
    - LA00000069217 - LANL
      - LASB50014
  - W798208 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.0010	%			

UET Working Copy
Date: 1-14-14 ar

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68752

6.2[4] Date Processed: 1-16-14

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 METALX 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] 120472 / 1-16-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68752

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 432.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 105.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 531.2 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.: 68752

		Daughter Drums			
10.1[4]/10.2[4]	Daughter Drum No.	69091	~~69217~~ ~~69191-16~~		
10.1[4]	Daughter Drum Filter No.	JL-865	LM 354	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10098	L-12753	A	
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	BOP			
	Model No.	6CPVC1.5-25PK			
	Serial No.	L-10086			
	Date of Manufacture	5/13			
10.2[5]	POC ID No	69191			
10.2[7][B]/10.2[6]	POC Item Description	NITRATE SALTS			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BG 267129	N	A	
10.2[14]	POC Assembly Gross Weight (lb)	393.4			
10.2[15]	POC Rad. Survey Results (mrem/hr)	800			
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 GALLONS	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		
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%	90%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER AND BAGOUT STUFF	KITTY LITTER AND BAGOUT STUFF		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68752

Comments: ROOM TRASH, PLASTICS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING.

11.1[1] Performed By: BRIAN GALLEGOS, B. Gallegos, 267129, ~~1-14-14~~ 1-16-14 BG 1-21-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clarissa Vilarde, 234072, 1/21/14
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.: 504563
Lot No.: 02383660
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:

PREPARED AT TA-54 AREA G

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 / Brian Gallegos / 267129 1-16-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Daniel Velarde / [signature] / 23479 / 1-21-14
Supervisor or designee (print) Signature Z # Date

UEI Working Copy
Date: 1-16-14 a

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69247

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 / Bri Gallegos / 267129 1-16-14
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): 169.2 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / Bri Gallegos / 267129 1-16-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Marissa Velarde / [signature] / 234079 1/21/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1/4/14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69091

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: 1/4/14 JR ~~BOP~~ BOP
Model No.: 6CPVC1.5-2SPVC
Serial No.: L10098
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: Joe Romero / [signature] / 1109702 / 1/4/14
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 029DS
Serial No.: JL-865
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.: 69091

Comments: n/c

5.[35] Performed By: Ja Romero / Romero / 1109204 / 1/4/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: missing signature. 9/23/14 Barbara Trujillo /
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69091

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] / 2067129 / 1-16-14
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.: 69091

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 2680 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 / 1-16-14
Operator (print) / Signature / Z# / Date

7.1[4] Reviewed By: Clarissa Rivera / [signature] / 234079 / 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.: 69217

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: Bernie Gallegos / [signature] / 267129 / 1-16-14 1-16-14 1-21-14
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 (+/-):		

na

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: [illegible] / [illegible] / [illegible] / 1/21/14 [illegible]
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 609217

6.[26] Scale File ID number: 0190165

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

6.[28] Drum gross weight: 305.0 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 / Brian Gallegos / 247129 / 1-16-14
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Clarissa Velarde / Clarissa Velarde / 23479 / 1/21/14
Supervisor or designee (print) / Signature / Z # / Date

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68752

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): ~~603.8~~ 432.2 BC 1-16-14

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] 1204NR1 / 1-16-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clarissa Velarde / [signature] 234679 / 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: Clarissa Velarde / [signature] 234679 1/21/14
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum SPD 72 NC 6.10.12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled & given new number in WCATS B Zingillo 12/2/13

Container ID: S823276 / 68752 Container Type: 85-GAL / Gross Weight (lbs): 439

Inner Seal #: 009966 / Filter Prefix: LAVC Filter Serial #: 01181; 04288 /

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

TWSR Comments: LEACHED SOLIDS NITRATE SALTS

Total PE-Ci Activity: 9.46E+00 / Equivalent Combustible PE-Ci: 3.55E+00 / AM-241 PE-Ci: 7.68E-01

Total Fissile Gram Equivalents: 104.5 / Total Surface Dose Rate (mrem/hr): 20 /

EPA Code(s): None /

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/8/2007 / Comment: Impenetrable Obj, /

Certified RTR Comment: None

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

Security Determination: [redacted] ☑ Green ☐ Yellow

Remediation Determination: ☐ 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 10 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts. J. Jones

Performed By: R. W. Jones / J. Jones / 117434 / 1.30.11
Production Control (Print) Signature Z Number Date

WDP Engineering SUSAN S. RAMSEY / Susan S. Ramsey / 100681 / 11/28/12

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: leached solids + nitrate salts
Net Wt: 380 lb. One item weighing ~283 lb. w/ SNM mass @ 111g
55 gal drum overpacked into 85 gal drum
May require RWP for >1000 and <10000 mrem/hr @ 30 cm
Nitrate salts may contain undocumented liquids

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 12/4/11
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 And Kitty Litter Ratio
Gilbert Martinez 14835 12/6/13

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Do not push or press on waste with hands. Use heavy duty gloves when processing waste.

Performed By: Vanessa Velarde / 234079 / 12/12/11
TRU Remediation Operations (Print) Signature Z Number Date

Jose Jerez / Jose Jerez / 221452 / 12/6/13

IHS Review Julian Amaller CSP, No IH concerns. 12/4/12

Discardable Waste Log Sheet

DrumID: 009966

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS 564 F1	128.2	NITRATE SALTS		110.65	52	5/11	
		128.2 kg						

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1·11·11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[redacted]	1286978	1-12-11
	/	/	/

Container No. (7.[1]):	S825908	S873554	S823276
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			5.98
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	5.98

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	S825908	S873554	S823276
Hydrogen Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	1217.00 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	598 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 / 1.12.10
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 111782 / 1.13.11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110111c\
Data File : S823276.D
Acq On : 11 Jan 2011 3:43 pm (#1); 11-Jan-11, 15:42:15 (#2)
Operator : EL
Sample :
Misc : 55 GAL LFL DRUM FROM 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 11 15:59:32 2011
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jan 10 10:28:07 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.629	96	8167905	205.50	ppmv	0.00
15) Chlorobenzene-d5	5.958	117	6896702	182.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.657	GC1	9522m	1217.00	ppmv	
12) Benzene	3.306	78	264010	5.98	ppmv	99

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

vocgas.m Tue Jan 11 15:59:53 2011

1-14-14
0600 Assuming WCRRF operations center - Orlando
0612 Starting outside rounds
0615 Pre job being performed by SOS
0625 Starting inside rounds
0637 Outside rounds completed
0638 Pre job concluded
0656 Item 43 is OOS, PCD in place okay to proceed per CSE documentation
0659 Inside rounds complete
0711 Rounds signed off by SOS
0720 Forklift has been released by RCTS.
0739 mode change performed TA5C-49 and WCRRF yard are now in Operations
0744 Starting movement into 5C-49.
0815 movement into 5C-49 is complete.
0830 Dropping vehicle access gates for movement out of WCRRF
0848 Starting to direct 4 drums.
0901 Vehicle access gates have been restored. movement of drums out of WCRRF complete
0950 Benzing is complete, Bagging on 9855186
1007 Bag on complete
1108 Bagging off, Bagging on ~~9851750~~ 1-14-14 ~~0923~~ 9851723
1129 Bag on, Bag off complete
1236 Bagging off, Bagging on 68752
1251 Bag on, Bag off complete
1402 Bagging off 1 daughter 1 PCC and continuing to process
1433 Bag off, Bag on complete
1513 Bagging off 1 daughter, Bagging on 9845028
1557 Bag on, Bag off complete
1600 Starting inside rounds
1604 Item 43 is OOS, PCD in place okay to proceed per CSE documentation
1609 Inside rounds complete
1616 Starting movement out of 5C-49.
1620 Bagging off 1 daughter, Bagging on 1 daughter.
1643 Bag on, Bag off complete
1645 movement out of 5C 49 complete
Continued on next page - CC

1-14-14 @ 1414 Continued from previous page - Melanie
1735 ~~1555~~ @ 1-14-14 Starting bag off of last drum of the ~~bag~~ 1-14-14 day.
1739 ~~1559~~ Deficiente rounds complete
1757 ~~1557~~ @ 1-14-14 Bag off complete
1804 mode change to Warm, TAQ-69 and WCRRF yard.
1815 End of day WCRRF operations center secure

Mg

No further entries this page

1-16-14 WCRR-SOM

0600 Reviewed shift turnover checklist and assumed WCRR SOM position.

0635 Completed pre job brief conducted by SOS - G. Martinez. ES/IH safety topic was attention to detail given last work day prior to weekend. Discussed work items for today - reinventory, outgoing shipment, characterization on site today, processing of SP 72's and 57's. Ensuring to determine weights of SP-57 drums prior to placing on drum lift. Maintenance day scheduled for tomorrow will not take place due to items completed yesterday - other items to be completed 1/31/14.

0710 Completed daily call in to TA-54 SOM to status todays activities.

0715 Reviewed rounds - noted on inside rounds that Item #51 - Combustible Loading packages inside 50-69 > 50 lbs had been marked Unsat due to forklift both the AM and yesterday PM. Forklift is excluded from requirements per note for that item in round sheets.

0720 RP1 reported that forklift is released - all surveys both removable and direct < MDA.

0739 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Cold to Operations / Operations.

0745 Operators directed to lower 50-69 thermostat to 68°F. Inside temp @ 68°F.

0815 Completed move in of 7 drums into 50-69

0901 Transfer of 6 drums out of WCRR to TA-54 is loaded and leaving TA-50.

0950 Completed denesting of 4 drums

1002 Completed bag on of 5855186.

1110 Submitted FSR #116542 for TS&R of the High Bay overhead electric heater. RP-1 reported it was not operating.

1126 Notified by OM that POD permission was granted for the 7 ES and RP personnel that stayed late last night to exceed the ~~for from~~ 1/16/14 24 hour work limit in a 48 hour period.

1129 Completed all bag offs for parent # 5855186 (1 daughter total), bagged on drum # 5851723.

1251 Completed all bag offs for parent # 5851723 (1 daughter total), bagged on parent # 68752.

Continued on next page →

1/16/14 WCRR SOM continued

1300 Completed attending weekly team meeting and daily PM update w/ OM and SOMs.

1417 Extended the following RWP's 2011-0018 Tours and Walkthroughs, 2012-0029 General Maintenance Activities, 2012-0231 ISI of WCG, 2012-0241 Maintenance of Equipment w/ Fixed Contamination.

1433 Operators bagged off 1 daughter and 1 POC, continuing to process.

1537 Completed all bag offs for parent # 68752 (2 daughters, 1 POC total). Bagged on drum #5845028

1615 Completed MOV of drum prepping in Arctic facility. Observed all operators wearing proper PPE and utilizing procedures. Did observe an operator while raising the rollup door with a drum too close that it was caught on the bottom of the door flange and drum ring. Drum tipped up ≈ 1" on corner when operator caught it, and stopped door operation. Drum was disengaged from door and pathway was cleared. No other issues noted.

1643 Completed bag off of 1 daughter, continuing to process.

1645 Completed move out of 8 drums from 50-69 to transportainers.

1757 Completed all bag offs for parent # 5845028 (2 daughters total). Port Cover in place.

1804 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1805 Bldg 50-69 thermostat reset to 72 °F.

1810 SOS reported that WCG wipe down was completed. Glove inspection completed w/ none identified requiring changing.

1835 Secured the SOM position.

No further entries this page RAG

PROJECT NAME WCRCF SOS LAO Back NOTEBOOK NO.

1/16/14

0600 Assuming SOS Position LAO Lead

0615 Conducted Shift brief. Discussed FE-003 configuration set by Contractor. All work was completed. Also discussed drum to move in and process.

0635 Concluded shift brief.

0711 Conducted inside and outside rounds

0726 Fork lift was damaged set to use RO CL-1

0739 made change complete WCRCF DN operations.

0744 Starting move into SO-69

0805 Movement Complete.

0830 Starting Shipment out to Area G

0846 Starting to Denest 4 Drums

0901 Shipment out Complete

0956 Denesting Complete. Bagging on 5851723 5855186

1002 Bag on Complete

1008 Bagging off of 5851723

1125 Bag on left complete

1226 Bagging off on 68752

1251 Bag on left Complete

1427 Bagging off / Daughter / 80C And continuing to Process

1433 Bagg / off bag Complete

1519 Bagging off / Daughter Bagging on 5845028

1532 Bag on left Complete

1606 Starting Rounds.

1626 Starting movement out of SO-69

1630 Bagging off / Daughter bagging on Brother

1643 Bag on left complete.

1645 movement out Complete

1733 Bagging off last Drum of Day

1757 Bag off complete Late entry Rounds inside and outside Rounds

Gm 1/16/14 1743 GM

RLA 1814 Made change Complete [illegible]

1820 End of Day Securing Station [illegible]

Folder

Notes

Was

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-RTR2-14-0009
Examination Date:	1/23/2014
Waste Container ID:	69091
Video/Audio Recorded Media Number:	LA-RTR2-14-0009 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.: 121.0 kg Tare Wt.: 33.4 kg Net Wt.: 87.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 69091

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM:

OI:

C:

R:

XPM: Plastic sheeting, 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):	0.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	84.6
Soils (S):	
Total WMP Weight:	87.6

CCP Radiography Data Sheet

Waste Container ID: 69091

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		1/23/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69091	Count Sequence Number:	16878
Operator:	DCLTD231\Operator		
Assay Start:	1/24/2014 2:21:13 PM		
Description 1:	2LANDA1256		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 87.6 kg	Net:	87.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.650 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: 16878
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 69091

Batch Number: 2LANDA1256
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/24/2014

Net Weight	87600.0 g		
Pu mass	3.41E+001	+-	5.66E+000 g
TRU Alpha Activity	9.04E+000	+-	3.55E+000 Ci
TRU Activity Concentration	1.03E+005	+-	4.05E+004 nCi/g
Pu-239 Equivalent Activity	9.11E+000	+-	3.55E+000 Ci
Pu-239 FGE	3.22E+001	+-	5.64E+000 g
Decay heat	2.95E-001	+-	1.18E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	2.19E-010	2.47E-007	5.07E-008	7.39E-008
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.01E-007
U233	<LLD	<LLD	0.00E+000	8.24E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.74E-006
NP237	1.33E-001	9.35E-005	1.65E-005	4.40E-006
PU238	3.11E-003	5.32E-002	1.20E-002	9.30E-004
U238	<LLD	<LLD	0.00E+000	1.84E-005
PU239	3.20E+001	1.98E+000	3.50E-001	3.47E-002
PU240	2.05E+000	4.64E-001	1.05E-001	8.12E-003
AM241	1.90E+000	6.53E+000	3.53E+000	7.53E-002
PU241	3.87E-002	3.99E+000	9.02E-001	6.98E-002
PU242	6.83E-003	2.70E-005	6.10E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-28-14

ITR: _____ Date: 1-30-14

Automated Independent Technical Review

Count Sequence Number: 16878
Batch Number: 2LANDA1256
Counter ID: HENC #2
Container ID: 69091
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 1/24/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than n-sigma * the correction factor error.	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. 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. 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: Sheri Chandler 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: **69091**

BDR Number: **LA14FG2015**

Sampling Date: **2/5/2014**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140205c\
Data File : 69091.D
Acq On : 5 Feb 2014 12:10 pm (#1); 05-Feb-14, 12:09:45 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 05 12:18:14 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.545	96	3525789	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.858	117	2721165	177.50 ppmv	0.00

Target Compounds	Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0009
Examination Date:	1/22/2014
Waste Container ID:	69191
Video/Audio Recorded Media Number:	LA-HERTR-14-0009 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.: 178.0 kg Tare Wt.: 145.1 kg Net Wt.: 32.9 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 69191

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):	30.9
Soils (S):	
Total WMP Weight:	32.9

CCP Radiography Data Sheet

Waste Container ID: 69191

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	1/22/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69191	Count Sequence Number:	24180
Operator:	D3PW2DK1\operator		
Assay Start:	1/23/2014 10:31:29 AM		
Description 1:	1LANDA1896		
Description 2:	POC 178.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 32.9 kg	Net:	32.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.761 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

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 24180
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69191

Batch Number: 1LANDA1896
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/23/2014

Net Weight	32900.0 g		
Pu mass	9.26E+000	+-	1.95E+000 g
TRU Alpha Activity	6.27E+000	+-	3.06E+000 Ci
TRU Activity Concentration	1.91E+005	+-	9.30E+004 nCi/g
Pu-239 Equivalent Activity	6.29E+000	+-	3.06E+000 Ci
Pu-239 FGE	8.76E+000	+-	1.95E+000 g
Decay heat	2.07E-001	+-	1.02E-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	7.29E-007
U233	<LLD	<LLD	0.00E+000	5.71E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.74E-006
NP237	7.91E-002	5.58E-005	1.09E-005	2.94E-006
PU238	8.45E-004	1.44E-002	3.73E-003	7.14E-004
U238	<LLD	<LLD	0.00E+000	1.63E-005
PU239	8.69E+000	5.39E-001	1.21E-001	2.66E-002
PU240	5.56E-001	1.26E-001	3.34E-002	6.23E-003
AM241	1.63E+000	5.59E+000	3.06E+000	6.20E-002
PU241	1.05E-002	1.08E+000	2.87E-001	5.36E-002
PU242	1.85E-003	7.33E-006	1.94E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6·6·14

ITR: [signature] Date: 6-10-14

DO
CJ 6/17/14

Automated Independent Technical Review

Count Sequence Number: 24180 Batch Number: 1LANDA1896
Counter ID: MCS HENC #1
Container ID: 69191
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/23/2014

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 failed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

Expert Review by: Bart B. Marah Date: 6/3/14

011
CJ 6/17/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69191**

BDR Number: **LA14FG12018**

Sampling Date: **2/4/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	173.12	
74-82-8	Methane	6.56	U
67-56-1	Methanol	1.24	U
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	1.31	
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 : 69191.D
Acq On : 4 Feb 2014 2:32 pm (#1); 4 Feb 2014 2:31 pm (#2)
Operator : DE
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 14:42:18 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	4.060	96	9565445	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7362942	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.917	GC1	49384m	173.12	ppmv	
17) Toluene	5.577	92	38876	1.31	ppmv	94

(#) = 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-HERTR-14-0009
Examination Date:	1/22/2014
Waste Container ID:	69217
Video/Audio Recorded Media Number:	LA-HERTR-14-0009 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.: 138.5 kg Tare Wt.: 33.4 kg Net Wt.: 105.1 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: 69217

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal

AM:

OM: Scrap lead

OI:

C: Tape roll

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):	0.3
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.2
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	77.6
Soils (S):	
Total WMP Weight:	105.1

CCP Radiography Data Sheet

Waste Container ID: 69217

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

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	1/22/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69217	Count Sequence Number:	24183
Operator:	D3PW2DK1\operator		
Assay Start:	1/23/2014 12:45:26 PM		
Description 1:	1LANDA1896		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 105.0 kg	Net:	105.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.670 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:	24183	Batch Number:	1LANDA1896
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:	69217	Analysis Date:	1/23/2014

Net Weight	105000.0 g			
Pu mass	1.88E+001	+-	3.56E+000	g
TRU Alpha Activity	9.82E+000	+-	4.48E+000	Ci
TRU Activity Concentration	9.36E+004	+-	4.27E+004	nCi/g
Pu-239 Equivalent Activity	9.83E+000	+-	4.48E+000	Ci
Pu-239 FGE	1.70E+001	+-	3.53E+000	g
Decay heat	3.23E-001	+-	1.49E-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	9.61E-007
U233	<LLD	<LLD	0.00E+000	6.60E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.84E-006
NP237	1.18E-001	8.33E-005	1.50E-005	3.43E-006
PU238	4.73E-003	8.09E-002	6.57E-002	2.73E-003
U238	<LLD	<LLD	0.00E+000	2.01E-005
PU239	1.69E+001	1.05E+000	2.19E-001	3.54E-002
PU240	1.87E+000	4.24E-001	9.97E-002	1.43E-002
AM241	2.41E+000	8.27E+000	4.48E+000	6.52E-002
PU241	8.01E-003	8.25E-001	1.95E-001	2.78E-002
PU242	4.17E-002	1.65E-004	7.51E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 1/28/14

ITR: [illegible] Date: 1-28-14

Automated Independent Technical Review

Count Sequence Number: 24183 Batch Number: 1LANDA1896
Counter ID: MCS HENC #1
Container ID: 69217
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/23/2014

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. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 1/28/14

Waste Container ID: **69217**

BDR Number: **LA14FG2010**

Sampling Date: **1/29/2014**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140129C\
Data File : 69217.D
Acq On : 29 Jan 2014 1:28 pm (#1); 29-Jan-14, 13:28:17 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 30 08:34:08 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	3.594	96	3230298	205.75	ppmv	0.08
15) Chlorobenzene-d5	5.884	117	2569744	177.50	ppmv	0.02

Target Compounds	Qvalue

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

S824551

S824551

Profile 763

Reports Help

1 S824551

763593	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

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Genealogy

S824551

- S824551
  - 90726 - EMPTY
  - 90725
    - 92493 - EMPTY
    - 92492
  - 90724
    - 92497 - EMPTY
    - 92496
    - 92495
    - 92494
  - 90723
    - 92490 - EMPTY
    - 92489
    - 92488
      - SB01977
  - 90722
    - 92485 - EMPTY
    - 92484
      - SB01967
  - 90721
    - 92480 - EMPTY
    - 92479
  - 90720
    - 92477
    - 92478 - EMPTY
    - 92476
  - 90719
    - 92483 - EMPTY
    - 92482
    - 92481
      - SB01933
  - 90718
    - 92471 - EMPTY
    - 92470
    - 92469
    - 92468
      - SB01937
  - 90715

Working Copy
Date: 1-5-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S824551

6.2[4] Date Processed: 1-5-12

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

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

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

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

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

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

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

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

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

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

Performed By: BRIAN FORDHAM Brian Fordham 235835 1-5-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 438.8 lb

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

ATTACHMENT 1

Page 2 of 3

4.1[6][B] Parent Waste Container No.: ~~S832340~~ S824551 (B) 9/23/2014

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 438.8 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90715	POC 1B	POC 1C	ADDITIONAL POC'S ON NEXT PAGE
10.1[4]	Daughter Drum Filter No.	FK-1248	N	N	
10.1[4]	Daughter Drum Bag Filter No.	FK-637	A	A	
10.1[4]	Daughter Drum Purchase Order No.	413660			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP	BOP	N
	Model No.	3cpx1.5-2spvc	3cpx1.5-2spvc	3cpx1.5-2spvc	
	Serial No.	WO.1490	WO.1442	WO.1620	
	Date of Manufacture	6/11	6/11	6/11	
10.2[5]	POC ID No	90718	90719	90720	
10.2[7][B]/10.2[6]	POC Item Description	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	A
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	N
10.2[14]	POC Assembly Gross Weight (lb)	349.8lbs	359.4lbs	352.0lbs	
10.2[15]	POC Rad. Survey Results (mrem/hr)	1301.0mR	1,000.2mR	450.5mR	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	A
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	N	N	
10.3[5][A]	Free Liquid Volume/Units	2-3 GAL			A
10.3[9][A]	PCB-contaminated Waste Description	N A	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 (%)	60%		A	N
10.5[4]	Description Waste Added During Processing	PLASTIC	A		A

ATTACHMENT 1
Page 2 of 3

(132) 9/23/14

4.1[6][B] Parent Waste Container No.: ~~5832340~~ 5824551

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 438.8 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	POC ID	POC E	POC F	POC G
10.1[4]	Daughter Drum Filter No.				
10.1[4]	Daughter Drum Bag Filter No.				
10.1[4]	Daughter Drum Purchase Order No.				
10.1[13][C]	WCG Fire Watch Stationed	☐ YES		☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES		☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP	BOP	BOP
	Model No.	3cpv1.5-2spvc	3cpv1.5-2spvc	3cpv1.5-2spvc	3cpv1.5-2spvc
	Serial No.	WO1119	WO1148	WO1485	WO1108
	Date of Manufacture	5/11	5/11	6/11	5/11
10.2[5]	POC ID No	90721	90722	90723	90724
10.2[7][B]/10.2[6]	POC Item Description	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	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	B.F. 235635
10.2[14]	POC Assembly Gross Weight (lb)	343.2lbs	343.3lbs	357.6lbs	372.0lbs
10.2[15]	POC Rad. Survey Results (mrem/hr)	300.25mR	1,000.25mR	450.5mR	300.25
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[5][A]	Free Liquid Volume/Units				
10.3[9][A]	PCB-contaminated Waste Description		N		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description		A		
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)				
10.5[4]	Description Waste Added During Processing				

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S824551

Comments: LEAD SHIELDING, PLASTIC, LIQUID ABSORBED, SALTS

11.1[1] Performed By: Brian Fortnam Brian Fortnam 235635 1-5-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez 149235 1-5-12
SOS/SOM (print) Signature Z # Date

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

85-Gallon Overpack ID Number 90726

RECORD Drum Filter information:	NucFil-013
Filter ID Number:	FS-404
Date of Manufacture:	6/09

TORQUE WRENCH INFORMATION

Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#	040695	M&TE ID#	032122
Cal Expiration Date	9-12-12	Cal Expiration Date	9-18-12
	+/-3% cw		
Tolerance	+/-6% ccw	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

Bung Torque Wrench	
M&TE ID#	040691
Cal Expiration Date	8-2-12
Tolerance +/-3% cw	+/-6% ccw
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) 120 in-lb ☐ N/A

Drum lid 2-inch bung torque value: (If applicable) 30 ft-lb ☐ N/A

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

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

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
Brian Fordham	Brian Fordham	B.F.	1235655	1-5-12
Alonzo Guerrero	Alonzo Guerrero		1238782	1-5-12

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

Drum ID#: 90715

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 #: 413660
Lot #: 208854
Date of Manufacture: 2010

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: Nuc-Fil
Model #: 036-DA
Serial #: FK-637
Date of Manufacture: 12-10

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: Nuc-Fil
Model #: 019-DS
Serial #: FK-1248
Date of Manufacture: 6-10

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	051063	M&TE ID #:	038570
Cal Expiration Date:	7-9-11	Cal Expiration Date:	5-10-11
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	+/-3% CW +/-6% CCW	Tolerance:	+/-3% CW +/-6% CCW

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

[x] Yes [ ] No

Print Name: Brian Fordham Signature: [signature] Z#: 235635

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 75.8 lbs
File ID #: 09065

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

6. Label Drum Assembly

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

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

Operator Print: Brian Fordham Operator Sign: [signature] Z#: 235635 Date: 1-5-12

Verifier Print: Alonso Guerrero Verifier Sign: [signature] Z#: 238782 Date: 1-5-12

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

DRUM ID#: 90715

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information.

MT&E # : 032122

Cal expiration date: 20-80 ft lbs

Range/ Value (ft-lbs): 9-18-12

--- 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.): 175.4lbs

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: Brian Fordham Date: 1-5-12

Verifier Print/Sign: Alonzo Guerrero Date: 1-5-12

SPL

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S824551 Container Type: 55-GAL Gross Weight (lbs): 451

Inner Seal #: 009466 Filter Prefix: LAVC Filter Serial #: 03543

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

TWSR Comments: LEACHED SOLIDS

Total PE-Ci Activity: 6.56E+00 Equivalent Combustible PE-Ci: 2.46E+00 AM-241 PE-Ci: 5.33E-01

Total Fissile Gram Equivalents: 72.5 Total Surface Dose Rate (mrem/hr): 5

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/11/2007 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: LA125M Production Control Comments: PEC

Performed By: R. W. Jones / R. W. Jones / 117434 / 1.18.11
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: Leached solids- nitrate salts
Net Wt: 391lb. Four items w/ weights ranging from 33lb to 146 lb.
May require RWP for >1,000 and <10,000 mrem/hr at 30cm

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 11/12/11
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: per Ops Manager

Performed By: Marissa Velarde / [signature] / 234079 / 12-1-11
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 009466

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-627FA		29.550	NITRATE SALTS		48.5	52	5/11	G468
2	IXFS-628FA		29.780	NITRATE SALTS		6.8	52	5/11	G468
3	IXFS-629F1		14.770	NITRATE SALTS		5.6	52	5/11	G468
4	IXFS-630FA		66.180	NITRATE SALTS		15.8	52	5/11	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 204.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	76.7	140.28
Totals	76.7	140.28

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 2/1/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	1237975	2-15-11

Container No. (7.[1]):	S824551 LS	S855909	S862884
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]):	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]):	S824551	S855909	S862884
Hydrogen Reading (ppm) (7.[10]):	2040.12 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: N/C

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 2/8/11
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]/ 11.1[8] Reviewed By: Kenny Romero / Kenny Romero 117886 / 2.15.11
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110201c\
Data File : S824551.D
Acq On : 1 Feb 2011 11:55 am (#1); 1 Feb 2011 11:54 am (#2)
Operator : GR
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM FROM UNDER DRUM LID. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 12:03:24 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	4410469	209.00	ppm	0.00
15) Chlorobenzene-d5	5.933	117	3608569	184.00	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.359	GC1	567236	2240.12	ppm	100

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

Vocgas.m Tue Feb 01 12:03:33 2011

7-5-12

0000 Resuming WCRF Operations center Outside
0019 late entry at 0541 started outside rounds - cyl
0000 late entry at 0008 completed ~~outside~~ outside rounds
0005 Starting inside rounds
0030 Item left on rounds to CDS per OSE documentation ok to proc
0713 Inside and Outside rounds signed off by SOS
0716 Mode Change performed we are now in Operations
0800 Logging on 5324551
0812 PDK 95D notified Ops Center transportation access were opened and not latched.
0824 Operator returned Operations Center to Fire during sp drawing. Controller returned and is on his way to inspect it
0901 DURLITE fire extinguisher has been inspected.
0955 Starting movement out of 5D-69 to transportation.
1007 Completed movement out 5D 69
1010 Starting movement to transport vehicle from transportation permission granted to break vehicle across gates.
1041 Completed movement from transportation to transport vehicle vehicle access gates have ~~been~~ 1/5/12 been restored.
1107 Logging off 5324551 and 5 Pers. Logging on 5332147.
1400 Operator inside 5D 69 introducing glove into glovebox
1401 Starting off loading of transport vehicle permission granted to leave vehicle access gate
1424 Introduction glove into glovebox completed
1455 Completed off loading of transport vehicle ~~1510~~ 1510 vehicle access gates have been restored
1504 Starting movement out of 5D-69 to transportation
1521 Completed movement out of 5D-69
1550 Starting bag off 5332147 and starting to dress
1612 Completed dressing of drum.
1614 Starting outside rounds
1630 Starting movement out of 5D 69
1655 Completed movement out of 5D-69.
1658 Mode Change completed we are now cold in bldg and warm on yard.
1700 end of day. WCRF operations center secure Outside

no further entries this page

SIGNATURE
READ AND UNDERSTOOD

1-5-12

0555 Reviewed shift turnover from previous shift and assumed the WCRR SOM position. Dominique Fernandez

0618 Attended pre-job briefing conducted by Shift Operations Supervisor. Discussed using the right tool for the job when trying to break apart packages that may be frozen. Discussed stop work authority with all operators. All operators will be attending JSR page change training today. Two sessions held at TA50-19e 0900 hrs and 1330 hrs.

0710 Made change complete WCRR YARD and 50-69 from WARM to OPERATIONS mode.

0800 Notified by Shift Operations Supervisor that RCTs just entered the facility to support operations.

0810 Notified by the Senior Supervisory Watch that while observing outside operations he noticed that transportations personnel didn't tie transportation doors down. R&T personnel will notified and instructed to place transportation doors in a safe configuration.

0825 Notified by Operation Center that operations are in a standstill outside due to the forklift fire extinguisher being expired since the end of the month of December.

0826 SOM notified Jim Gallegos about fire extinguisher. Jim is on his way.

0900 Inspector arrived for fire extinguisher.

0905 ~~0845~~ 0845 Late entry - Spoke to SSW about safety observations observed during walkdown of outside operations. He notified SOM of some areas of concern. 1) no decals in pins. One iceyard in yard. 2) individual walking in back of a forklift during inspection. 3) fire extinguisher on forklift expired. 0850 Late entry - SOM called a safety pause with all outside operators to discuss observations. SOM called PIC inside and had him call a safety pause inside to discuss observations.

0906 Attended WCRR Basis for Centering Operations and Technical Safety Requirements R.2.0 Annual Update and Page Change R.2.1 for TA50-69 Operations Personnel.

1045 Training complete for first half of the crew. Next session will be conducted at 1330 hrs.

1411 Notified by e-mail that drums from solution package #1 and #15 will be shipped to WCRR next week.

1556 Confirmed with Operations Manager and Energy Solutions Manager that WCRR will haul enough fuel stock for next week to keep operations going for early next week. Therefore 50-69 may go into cold mode through the weekend to support maintenance.

1600 Confirmed with Energy Solutions Manager and Shift Operations Supervisor that the channel calibration test will be

SIGNATURE DATE

READ AND UNDERSTOOD DATE

1.5.12

conducted on 1.9.12 in order to meet 4.3.1.7 and 4.3.2.6.
Operators will come in at 0500 hrs. including TCTs to perform
S.R. daily.
1700 Mode change complete. WORKYARD from OPERATIONS to WARM.
1710 Mode and 50-U9 from OPERATIONS to COLD mode.
Relieving the watch. [illegible]

NO Deficiencies [illegible]

0600 REVIEWED SOS TURNOVER AND ASSUMING WCRR SOS POSITION
0615 STARTING PRE-JOB BRIEFING
0705 PRE-JOB BRIEFING CONCLUDED
0800 Notified BY Inside Personal BCT's were Just now entering facility
0825 notified by outside Personal Fire extinguisure not up to date stoping All forklift operations
0830 Notified Inspector to come And check Fire extinguisure
0845 Inspector Arrived And Inspected fire extinguisure
1623 ~~End of~~ 1-5-12 ~~Turn~~ 1-5-12 Turning over SOS Position
1626 late entry Energy Solutions OM Conducted brief on Conduct of ops At 1245
1630 TURNING SOS POSITION OVER
1631 Reviewed SOS TURNOVER AND ASSUMING WCRR SOS POSITION
700 Movement Complete
700 MODE CHANGE COMPLETE
1710 SECURING WCRR SOS POSITION

2/01/12

No Further Entries ON THIS PAGE

S824551

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0123
Examination Date:	10/25/2012
Waste Container ID:	90715
Video/Audio Recorded Media Number:	LA-RTR2-12-0123 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 80.0 kg Tare Wt.: 33.4 kg Net Wt.: 46.6 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: 90715

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	Tape rolls
R:	
XPM:	Plastic bags, plastic lids
OR:	
IN:	Homogeneous solids, absorbent
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	25.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	16.0
Soils (S):	
Total WMP Weight:	46.6

CCP Radiography Data Sheet

Waste Container ID: 90715

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

RTR Operator:

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

NDA 2000 Assay Report

Item Information

Item ID:	90715	Count Sequence Number:	21480
Operator:	D3PW2DK1\operator		
Assay Start:	10/26/2012 9:33:45 AM		
Description 1:	1LANDA1662		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 46.6 kg	Net:	46.6 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.370 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:	21480	Batch Number:	1LANDA1662
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	90715	Analysis Date:	10/26/2012

Net Weight	46600.0 g		
Pu mass	6.02E+000	+-	1.51E+000 g
TRU Alpha Activity	2.31E+000	+-	2.63E-001 Ci
TRU Activity Concentration	4.96E+004	+-	5.64E+003 nCi/g
Pu-239 Equivalent Activity	2.32E+000	+-	2.63E-001 Ci
Pu-239 FGE	5.69E+000	+-	1.41E+000 g
Decay heat	7.62E-002	+-	8.71E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.06E-002	2.19E-005	2.85E-006	1.12E-006
PU238	5.55E-004	9.60E-003	2.40E-003	3.41E-005
PU239	5.65E+000	3.55E-001	8.90E-002	1.26E-003
PU240	3.61E-001	8.31E-002	2.08E-002	2.95E-004
AM241	5.37E-001	1.86E+000	2.46E-001	1.94E-002
PU241	7.26E-003	7.55E-001	1.89E-001	2.68E-003
PU242	1.21E-003	4.78E-006	1.20E-006	0.00E+000
SR90	7.57E-009	1.04E-006	3.89E-007	0.00E+000
CS137	1.19E-008	1.04E-006	3.89E-007	3.71E-007
U233	<LLD	<LLD	0.00E+000	2.09E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.57E-007
U238	<LLD	<LLD	0.00E+000	7.81E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10-30-12

ITR: Beverly Brown Date: 10/31/12

Automated Independent Technical Review

Count Sequence Number: 21480 Batch Number: 1LANDA1662
Counter ID: MCS HENC #1
Container ID: 90715
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 10/26/2012

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor 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 Chamberlin Date: 10-29-12

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **90715**

BDR Number: **LA12FG12048**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	66.54	
74-82-8	Methane	9.63	U
67-56-1	Methanol	77.26	
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	10.84	
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\121031C\
Data File : 90715.D
Acq On : 31 Oct 2012 2:12 pm (#1); 31 Oct 2012 2:11 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 14:20:29 2012
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.057	96	5987300	204.00	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6306415	179.25	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.923	GC1	18792	66.54	ppmv	100
4) Methanol	0.824	31	53897	77.26	ppmv	100
17) Toluene	5.573	92	253847	10.84	ppmv	91

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

52

Working Copy
Date: 12-17-12 w

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90718

6.2[4] Date Processed: 12/17/12

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

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: B. Forouham / B. [signature] 235655 / 12/17/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90718

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 355.6 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 355.6 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:

EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90718

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92468		N	
10.1[4]	Daughter Drum Filter No.	AM-1027		N	
10.1[4]	Daughter Drum Bag Filter No.	L-4374			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP		
	Model No.	6CPVC12-2SP	6CPVC15-3SPVC		
	Serial No.	L-4410	L-4373		
	Date of Manufacture	7/12	7-12		
10.2[5]	POC ID No	92469	92470		
10.2[7][B]/10.2[6]	POC Item Description	Kitty Litter Salt Plastic	Kitty litter salt		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	MR 182723	MR 182723		
10.2[14]	POC Assembly Gross Weight (lb)	372.2	354.4		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000	1000		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A		N	
10.3[5][A]	Free Liquid Volume/Units	2 oz			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N		A	
10.3[9][A]	PCB-contaminated Waste Description	A			
10.3[9][B]	PCB Item ID No.		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 (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter Cardboard			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90718

Comments: POC LID, FIBERBOARD, WOOD, PLASTIC, CARDBOARD, KITTY LITTER, POLY LID.

11.1[1] Performed By: B. FORDHAM B. Fordham 235835 12/17/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] [illegible] [illegible] [illegible]
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.: 413954
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 0-13
Serial No.: 16-296
Manufacture Date: 9-11

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

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

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

Performed By: BRIAN GALLEGOS / [signature] / 267129
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/c

8.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 11-19-12
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: [signature] / [signature] / 14985 1-3-13
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.: 92471

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

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

Performed By: Michael Romero [signature] 182723 12/17/12
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): _____ lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 12/17/12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: G Martinez [signature] 149335 1-3-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92468

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: 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 #: 6 CPVC-1.5-2-SPVC
Serial #: ~~AM-1027~~ 11-28-12 L-4374
Date of Manufacture: ~~1/12~~ 11-28-12 7/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nafi
Model #: 019B
Serial #: AM-1027
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%~~ 11-28-12 ±4% cm / ±3% cm	Tolerance:	±3% cm / ±6% cm

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Clayta Mullins Signature: [signature] Z#: 240092

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 75.8
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Clayta Mullins Operator Sign: [signature] Z#: 240092 Date: 11/28/12
Verifier Print: B. Fordham Verifier Sign: B. Fordham Z#: 235235 Date: 12/17/12

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

DRUM ID#: 92468

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 ft lbs

Tolerance +/- 3% CW +/- 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.): 172.2

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: B. Fordham Date: 12/17/12

Verifier Print/Sign: Michael Ramos Date: 12/17/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90718 Container Type: POC Gross Weight (lbs): 350

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-247; EL-579

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0008

TWSR Comments: PARENT #S824551 WTS-12STD-712

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solids

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 ~~D008~~ & D009

Nitrate salts mixed with waste for 770® for previous repack campaign. A minimum of 1:2 volume of kitty litter/waste must be mixed with 1 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan S. 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 – 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

RTR BDR inventory shows homogeneous solid material and cloth material

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 10/3/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevarmour gloves when processing waste. Do not push or press on waste with hands.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Joe Perez (TRU Remediation Operations (Print)) Signature: Joe Perez Z Number: 221452 Date: 10-15-12

LL Z# 249750 10/19/12

HS REVIEW: RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0008
Examination Date:	01/18/2012
Waste Container ID:	90718
Video/Audio Recorded Media Number:	LA-RTR2-12-0008 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0282-12 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: 159.0 kg. Tare Wt: 145.1 kg. Net Wt: 13.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90718

Section 3: Container Inventory and Comments (Detailed descriptions)
Cloth material
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	5.9
Soils (S):	
Total WMP Weight:	13.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90718

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for question 1)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container **GREATER** than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments: Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-0282-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/18/12

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])	96718					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PCC					
Filtered Vent Type (5.[1])	HDS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: Per attached email, container has been verified as PCC

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 #), 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90718.D
Acq On : 5 Oct 2012 1:21 pm (#1); 5 Oct 2012 1:20 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM THROUGH 19DS-UNOBSTRUCTED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 13:28:33 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	2443755	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2146316	179.50 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Fri Oct 05 13:28:46 2012

~~12-17-13~~ 12-17-12

0000 Assuming WCRRF operations center - Chelonde
0005 Starting outside rounds, operator notifying ops. center
0010 Starting inside rounds
0035 ~~0035~~ Item left as OOS, CSE documentation OK to proceed. outside rounds complete.
0700 Inside and outside rounds signed off by SOS
0745 Mode change performed TA50-69 and WCRRF yard in operation
0747 Operators notifying operations center small forklift is frozen.
0949 Starting movement into TA50-69.
1003 Completed movement 50-69.
1012 bagging on 90324
1017 PPE Check is SAT.
1043 PPE Check is Sat.
1124 PPE Check is Sat.
1133 bagging off 90324, bagging on 90718
1204 bag on, bag off complete and PPE Check is sat.
1205 Late entry 1023 bag on is complete - Chelonde
1303 bagging off 90718 and 29005, bagging on 90317, PPE Check is Sat.
1345 bag on, bag off complete
1412 PPE check is Sat
1415 Starting movement out of TA50-69
1420 bagging off 90317, bagging on 85272
1428 movement out of 50-69 complete.
1431 Starting movement into 50-69.
1437 bag on, bag off complete. PPE Check is Sat
1445 Starting outside rounds.
1502 outside rounds complete.
1503 Starting inside rounds, PPE Check is Sat
1515 Item left as OOS per CSE documentation OK to proceed.
1509 Inside and outside rounds signed off by SOS
1604 Bag off is complete.
1622 mode change performed TA50-69 and WCRRF yard now in warm standby.
12-17-12 1630 end of day WCRRF operations center secure - Chelonde

no further entries this page.

12/17/12

0600 Reviewed shift turnover and assumed WCRR SOM

0700 Called into TA-54 Daily Brief conducted by TA-54 SOM and status WCRR work for today.

0705 Late Entry - 0615 Attended pre job brief conducted by SOS - discussed lessons learned from last week including twice daily roundsheet requirements while in warm mode. Clearing of areas of snow and ice

0720 Met w/ OSPAT supervisor regarding transportation schedule for this week and first week back from break. Agreed to an In/Out tomorrow followed by Out only on Thurs 12/20. After the break will have an outgoing on Thurs 1/3/13 w/ possible incoming if needed - will assess this week based on production.

0745 Completed Mode Change: WCRR Yard / Bldg. 50-69 from Warm / Cold to Operations / Operations.

0746 Notified by operators that both forklifts were not working due to cold weather (hydraulics froze up => can't operate mast controls / up & down or tines, etc). Both forklifts in sunny area of yard to allow for warm up.

0949 Forklifts determined to be operable. Moving inventory into Bldg 50-69.

1012 Bagging on 1st drum onto WCG

1030 Discussed maintenance schedule w/ MSS, OM and RP-1 supervisor. Goal is to complete all of last weeks PM's, this weeks and ISI 6.32 this Friday. Will require more than 2 RCT's and 3 operators currently scheduled.

1200 Daily call in with PM and OM to status WCRR operation for the day.

1442 Notified by RP-1 supervisor that detector on PCM in Bldg 50-69 requires replacement. RP-2 onsite to repair and calibrate.

1458 PCM repairs complete.

1510 CCP Operator reported that one of the drums moved into 50-69 for processing #91805 should have went to Flam Gas instead of WCRR - Noticed by NCR tag on drum and reading notes in SED's packet on NCR documentation.

1600 Verified path forward of drum 91805 w/ CCP management. Will make arrangements to ship back to TA-54 for Flam Gas.

1622 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1645 Secured SOM position

No further entries this page

12-17-12 WCRR SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0605 SHIFT brief started did Post Job Prior to Discussed window change that took place 12-13-12 reviewed new BWP

0655 Shift brief Concluded.

0700 reviewed Inside and outside Rounds

0745 Mode Change Complete WCRRF IN operations.

0750 Late entry Unable to move drums out of transportainer due Ice And snow operator's Spreading Ice melt needs to thaw or forklift will stay stuck 0715 GM.

0936 Ice has Melted ad moving In drums From transportainer to SO

1012 bag off First drum for Day 90324

1017 PPE Check sat

1043 PPE Check Sat

1124 PPE Check SAt

1133 bagging off And bagging on 90718

1204 bag off complete PPE check sat

1303 bagging off And bagging on 90317 PPE Check sat

1412 PPE Check sat

1420 bagging off and bagging on 85272

1526 Reviewed Inside And Sr outside Rounds

1622 Mode Change Complete WCRRF In Warm

12-17-12 1630 end of shift securing SOS Position [illegible]

HA

No further entries on this page

CCP Radiography Data Sheet

582451

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0005
Examination Date:	1/15/2013
Waste Container ID:	92468
Video/Audio Recorded Media Number:	LA-RTR2-13-0005 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 78.0 kg Tare Wt.: 33.4 kg Net Wt.: 44.6 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: 92468

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM:

OM:

OI:

C: Fiberboard insert sleeve, fiberboard material

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):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	20.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	4.6
Soils (S):	
Total WMP Weight:	44.6

CCP Radiography Data Sheet

Waste Container ID: 92468

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:		
Dennis Powell Eric Lyles		1-15-13 1/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

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

Item ID:	92468	Count Sequence Number:	21857
Operator:	D3PW2DK1\operator		
Assay Start:	1/16/2013 4:15:12 PM		
Description 1:	1LANDA1697		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 44.6 kg	Net:	44.6 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.240 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:	21857	Batch Number:	1LANDA1697
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92468	Analysis Date:	1/16/2013

Net Weight	44600.0 g			
Pu mass	9.24E-002	+-	1.45E-002	g
TRU Alpha Activity	4.36E-002	+-	1.06E-002	Ci
TRU Activity Concentration	9.78E+002	+-	2.38E+002	nCi/g
Pu-239 Equivalent Activity	4.38E-002	+-	1.06E-002	Ci
Pu-239 FGE	8.74E-002	+-	1.44E-002	g
Decay heat	1.44E-003	+-	3.55E-004	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	2.78E-009	3.83E-007	7.00E-008	0.00E+000
CS137	4.37E-009	3.83E-007	7.00E-008	1.08E-007
U233	<LLD	<LLD	0.00E+000	5.74E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.52E-007
NP237	2.78E-003	1.98E-006	2.29E-007	2.69E-007
PU238	8.50E-006	1.47E-004	3.09E-005	9.95E-005
U238	<LLD	<LLD	0.00E+000	2.25E-006
PU239	8.68E-002	5.46E-003	9.07E-004	3.69E-003
PU240	5.55E-003	1.28E-003	2.78E-004	8.63E-004
AM241	1.06E-002	3.68E-002	1.06E-002	5.52E-003
PU241	1.10E-004	1.15E-002	2.50E-003	7.76E-003
PU242	1.85E-005	7.34E-008	1.60E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-2013

ITR: _____ Date: 1.24.13

Automated Independent Technical Review

Count Sequence Number: 21857
Batch Number: 1LANDA1697
Counter ID: MCS HENC #1
Container ID: 92468
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/16/2013

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
No Warnings Reported.	
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
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 1-21-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92468**

BDR Number: **LA13FG12007**

Sampling Date: **1/24/2013**

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\130124c\
Data File : 92468.D
Acq On : 24 Jan 2013 1:00 pm
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 24 13:08:57 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.060	96	9169894	204.00 ppmv	0.00
15) Chlorobenzene-d5	6.636	117	8128892	179.25 ppmv	0.00

Target Compounds	Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92469
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 C&D
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.: 168.5 kg Tare Wt.: 145.1 kg Net Wt.: 23.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92469

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve(Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	23.4
Soils (S):	
Total WMP Weight:	23.4

CCP Radiography Data Sheet

Waste Container ID: 92469

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:

Benito Maestas		1/8/2013
Print Name	Signature	Date

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

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

Item ID:            92469              Count Sequence Number:  21819
Operator:           D3PW2DK1\operator
Assay Start:        1/10/2013   2:24:07 PM
Description 1:      1LANDA1695
Description 2:      POC - Gross Wt. = 168.5 Kg.
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:        23.4   kg        Net:    23.4 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.713 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:	21819	Batch Number:	1LANDA1695
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92469	Analysis Date:	1/10/2013

Net Weight	23400.0 g		
Pu mass	3.96E+001	+-	6.43E+000 g
TRU Alpha Activity	6.01E+000	+-	1.71E+000 Ci
TRU Activity Concentration	2.57E+005	+-	7.31E+004 nCi/g
Pu-239 Equivalent Activity	6.10E+000	+-	1.71E+000 Ci
Pu-239 FGE	3.74E+001	+-	6.04E+000 g
Decay heat	1.94E-001	+-	5.70E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.16E-002	3.68E-005	6.92E-006	2.46E-006
PU238	3.65E-003	6.31E-002	1.02E-002	3.50E-005
PU239	3.72E+001	2.34E+000	3.80E-001	1.30E-003
PU240	2.38E+000	5.47E-001	8.87E-002	3.03E-004
AM241	8.82E-001	3.06E+000	1.67E+000	5.26E-002
PU241	4.73E-002	4.92E+000	7.98E-001	2.73E-003
PU242	7.94E-003	3.15E-005	5.11E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.54E-007
U233	<LLD	<LLD	0.00E+000	4.83E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.44E-006
U238	<LLD	<LLD	0.00E+000	1.17E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-13

ITR: _____ Date: 1-16-2013

Automated Independent Technical Review

Count Sequence Number: 21819 Batch Number: 1LANDA1695
Counter ID: MCS HENC #1
Container ID: 92469
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2013

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

Expert Review by: Sheri Chamberlin Date: 1-14-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92469**

BDR Number: **LA13FG2080**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1039.34	
74-82-8	Methane	142.14	U
67-56-1	Methanol	92.24	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	32.90	
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	6.30	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130710C\
Data File : 92469.D
Acq On : 10 Jul 2013 12:32 pm (#1); 10-Jul-13, 12:31:22 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:41:48 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	3.522	96	4323911	205.75	ppmv	0.00
15) Chlorobenzene-d5	5.861	117	3516134	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.610	GC1	7815	1039.34	ppmv	100
4) Methanol	0.834	31	31868	92.24	ppmv	100
7) Acetone	1.373	58	42204	32.90	ppmv	89
12) Benzene	3.212	78	96382	6.30	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-RTR2-13-0004
Examination Date:	1/10/2013
Waste Container ID:	92470
Video/Audio Recorded Media Number:	LA-RTR2-13-0004 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.: 161.0 kg Tare Wt.: 145.1 kg Net Wt.: 15.9 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 1 layer
Volume Utilization Percentage:	95 %

EC 1/14/13

~~JS~~ RTR Data Sheet.xls SCO# 1189 Ver. 1
Microsoft Excel 2003 Windows XP

JS
EC 1/14/13

CCP Radiography Data Sheet

Waste Container ID: 92470

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal

AM:

OM:

OI:

C:

R:

XPM: Plastic sheeting

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):	0.2
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	13.2
Soils (S):	
Total WMP Weight:	15.9

CCP Radiography Data Sheet

Waste Container ID: 92470

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: SME/OJT Kenneth Simpson monitoring operator Benito Maestas at the controls to evaluate proficiency and provide training/ mentoring as required. Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid; therefore, the liner is vented.

RTR Operator:

Benito Maestas — 1/10/2013

Print Name Kenneth Simpson — Signature — Date 1/10/13

NDA 2000 Assay Report

Item Information

Item ID: 92470 Count Sequence Number: 14828
Operator: DCLTD231\Operator
Assay Start: 1/14/2013 10:20:43 AM
Description 1: 2LANDA1077
Description 2: POC - Gross Wt. = 161.0
Location: LANL TA-54
Comment: AK-6
Matrix Type: Homo Sol. S3000
Container Type: 55 gal Drum
Weight: Net: 15.9 kg Net: 15.9 kg
Container: Volume: 208.0 l Full: 95.0 %
Density: 0.675 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

010
CS6/17/14

NDA 2000 Assay Report

Item Information

Item ID:	92470	Count Sequence Number:	14828
Operator:	DCLTD231\Operator		
Assay Start:	1/14/2013 10:20:43 AM		
Description 1:	2LANDA1077		
Description 2:	POC - Gross Wt. = 161.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 15.9 kg	Net:	15.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.675 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

SUPERCEDED

CS 6/17/14

CS 6/17/14 U10A

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	14828	Batch Number:	2LANDA1077
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	92470	Analysis Date:	1/14/2013

Net Weight	15900.0 g		
Pu mass	9.80E+000	+-	1.86E+000 g
TRU Alpha Activity	2.42E+000	+-	3.42E-001 Ci
TRU Activity Concentration	1.52E+005	+-	2.15E+004 nCi/g
Pu-239 Equivalent Activity	2.44E+000	+-	3.42E-001 Ci
Pu-239 FGE	9.25E+000	+-	1.75E+000 g
Decay heat	7.90E-002	+-	1.13E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.71E-002	1.93E-005	3.53E-006	1.71E-006
PU238	9.02E-004	1.54E-002	2.93E-003	3.70E-005
PU239	9.20E+000	5.70E-001	1.08E-001	1.37E-003
PU240	5.88E-001	1.34E-001	2.54E-002	3.20E-004
AM241	4.96E-001	1.70E+000	3.23E-001	4.08E-003
PU241	1.17E-002	1.21E+000	2.29E-001	2.89E-003
PU242	1.96E-003	7.75E-006	1.47E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.50E-007
U233	<LLD	<LLD	0.00E+000	3.20E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.05E-006
U238	<LLD	<LLD	0.00E+000	7.57E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 6-5-14

ITR: _____ Date: 6-6-14

011
03 6/17/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 14828
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 92470

Batch Number: 2LANDA1077
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/14/2013

Net Weight	15900.0 g		
Pu mass	9.80E+000	+-	1.86E+000 g
TRU Alpha Activity	8.24E-001	+-	1.14E-001 Ci
TRU Activity Concentration	5.18E+004	+-	7.19E+003 nCi/g
Pu-239 Equivalent Activity	8.46E-001	+-	1.14E-001 Ci
Pu-239 FGE	9.24E+000	+-	1.75E+000 g
Decay heat	2.59E-002	+-	3.55E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.72E-002	1.94E-005	3.55E-006	1.71E-006
PU238	9.02E-004	1.56E-002	2.96E-003	3.74E-005
PU239	9.20E+000	5.79E-001	1.10E-001	1.39E-003
PU240	5.88E-001	1.35E-001	2.57E-002	3.24E-004
AM241	2.72E-002	9.43E-002	1.79E-002	2.26E-004
PU241	1.17E-002	1.22E+000	2.31E-001	2.92E-003
PU242	1.96E-003	7.79E-006	1.48E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.50E-007
U233	<LLD	<LLD	0.00E+000	3.20E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.05E-006
U238	<LLD	<LLD	0.00E+000	7.57E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1·15·13

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

CS 6/17/14

SUPERSEDED

CS 6/17/14 U11A

Automated Independent Technical Review

Count Sequence Number: 14828 Batch Number: 2LANDA1077
Counter ID: HENC #2
Container ID: 92470
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/14/2013

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. No Warnings Reported:	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

012
CD 6/12/14

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. Marak Date: 6/5/14

012A
CSC 6/12/14

Automated Independent Technical Review

Count Sequence Number: 14828 Batch Number: 2LANDA1077
Counter ID: HENC #2
Container ID: 92470
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/14/2013

SUPERCEDED CJ 6/17/14

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. No Warnings Reported.	OK
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	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.
Section 5 - 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: 1/15/13 F 1/15/13

U12B CJ 6/17/14

```
*********************************************************************
****        G E N I E   Q U A L I T Y   A S S U R A N C E        *****
*********************************************************************
```

Last Results Report
1/14/13 9:02:00 AM

QA File: C:\CANBERRA\NDA2K\QA\CNTR0001_DC
Sample ID: Background
Sample Quantity: 1.0000E+000
Sample Date: 1/14/13 8:28:12 AM
Measurement Date: 1/14/13 8:28:12 AM
Elapsed Live Time: 0.0 seconds
Elapsed Real Time: 0.0 seconds

Parameter Description [Mean +/- Std. Dev.]	Value	Deviation/Flags < LU : SD : UD : BS >
Reals QC Bkgd #2 [0.00+/-0.00]	3.7385E+000	0.00 < : : : >
Totals QC Bkgd #2 [0.00+/-0.00]	3.9894E+001	0.00 < : : : >

Flags Key:
LU = Lower/Upper Bounds Test (Ab = Above, Be = Below)
SD = Sample Driven N-Sigma Test (In = Investigate, Ac = Action)
UD = User Driven N-Sigma Test (In = Investigate, Ac = Action)
BS = Measurement Bias Test (In = Investigate, Ac = Action)

Operator Name: [signature] Date: 1-14-13

ITR Name: [signature] Date: 1-21-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92470**

BDR Number: **LA13FG2080**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	412.81	
74-82-8	Methane	142.14	U
67-56-1	Methanol	47.24	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.14	
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130710C\
Data File : 92470.D
Acq On : 10 Jul 2013 12:43 pm (#1); 10-Jul-13, 12:43:06 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:53:51 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	3.542	96	4336999	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.881	117	3520895	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	3104m	412.81	ppmv	
4) Methanol	0.834	31	16371	47.24	ppmv	100
7) Acetone	1.376	58	23340	18.14	ppmv	84

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

UET

Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90719

6.2[4] Date Processed: 12/18/12

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

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

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

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

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

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

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

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

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

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

Performed By: B. Forsman / B. Zaw 235835 / 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90719

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 365.2 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 365.2 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

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90719

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92481		N	
10.1[4]	Daughter Drum Filter No. AM-103	AM-103			
10.1[4]	Daughter Drum Bag Filter No. L-4395	L-4395		P	
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP			
	Model No.	65pvc1.5-25qt			
	Serial No.	L-4371			
	Date of Manufacture	7/12			
10.2[5]	POC ID No	92482			
10.2[7][B]/10.2[6]	POC Item Description	Kitty litter SALTS. Plastic			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635			
10.2[14]	POC Assembly Gross Weight (lb)	372.01lbs			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1,007, mR			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N		N	
10.3[5][A]	Free Liquid Volume/Units	P			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N P		N	
10.3[9][A]	PCB-contaminated Waste Description	N N			
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 (%)	50%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter Tape			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90719

Comments: POC STEEL LID, PolyLiner LID, WOOD LID, FIBERBOARD LID, Bolts, TAPE, PLASTIC, SALTS, KITTY LITTER,

11.1[1] Performed By: B. Ferguson / B. Fergusson 235235 / 12/18/12
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: G Mk / [signature] 149235 / 1.3.13 0915
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.: 413724
Lot No.: 20 114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-231
Manufacture Date: 9-11

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

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

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

Performed By: BRIAN GALLEGOS / [signature] / 246729 / 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] / 246729 / 12-11-12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: G Wh / [signature] / 142255 / 1-3-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-18-12 jr

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92483

7.[25] Overpack drum closure ring torque wrench information: B.F. 12/18/12
M&TE No.: ~~038867~~ 021151
Cal. Expiration Date: ~~3/15/13~~ 6/11/13
Range in ft-lb: 16-80 ft lbs
Tolerance: +/- 3% cw +/-

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

Performed By: B. Fordham / B. Fordham 235835 / 12/18/12
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): 318.0 lbs lb

Comments: N/C

8.1[1] Performed By: B. Fordham / B. Fordham 235835 / 12/18/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Gilbert Martinez / [illegible] 149355 / 1.3.12
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92481

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 #: 02229224
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 #: 60cpvc 1.5-2.5 PVC
Serial #: L4395
Date of Manufacture: 7/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: AM-1013
Date of Manufacture: 1/12

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 #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-30
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: BRIAN GALLEGOS Signature: [signature] Z#: 267129

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 77.01bs
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: BRIAN GALLEGOS Operator Sign: [signature] Z#: 267129 Date: 12-11-12

Verifier Print: B. FORDHAM Verifier Sign: B. Ford Z#: 235635 Date: 12/18/12

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

DRUM ID#: 92481

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: B.F. 12/18/12

MT&E #: 038367 - 021151

Cal expiration date: 3/16/13 6/11/13

Range/ Value (ft·lbs): 16-80 ft lbs

— 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.): 168.4

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: B. Fordham Date: 12/18/12

Verifier Print/Sign: Don Pacheco Date: 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90719 Container Type: POC Gross Weight (lbs): 359

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-255; EL-69

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-801

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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, ~~D008~~ & D009. Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1.2 volume 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: 9/4/12

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 – POC

Net Wt: 49 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 chromium, lead, and mercury. No chemicals present. May require RWP for >100 & < 1000 mrem/hr RTR BDR inventory shows homogeneous solid material & plastic bag.

Performed By: Valerie Rhodes / WDP Engineering (Print) Signature: Valerie Rhodes / Z Number: 102609 / Date: 10/3/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Hexarmour gloves when processing waste. Do not push or press on waste with hands.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez / TRU Remediation Operations (Print) Signature: Jose Jerez / Z Number: 221452 / Date: 10-15-12

OK Z# 249750 10/19/12

HS REVIEW: AB 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Page 1 of 3

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90719
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 163.5 kg. Tare Wt: 145.1 kg. Net Wt: 18.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90719

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	0.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	18.3
Soils (S):	
Total WMP Weight:	18.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 3 of 3

Waste Container ID: 90719

Section 6: RTR Summary (Questions answered "Yes" will be explained in the Comments block except for Question 13)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:

Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	96719					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19 DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: Per attached email, container has been verified as 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: SUSAN RAMSEY (Waste Handling Operator (print)) [signature] (Signature) 100681 (Z #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90719.D
Acq On : 5 Oct 2012 1:06 pm (#1); 05-Oct-12, 13:05:29 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 13:14:01 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	3.601	96	6719559	201.25	ppmv	0.06
15) Chlorobenzene-d5	5.920	117	5863320	177.00	ppmv	0.04

Target Compounds Qvalue

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

03
2-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Cleland
0001 Starting inside and outside rounds
0017 Item 01 is OOS, per CSE documentation OK to proceed.
0021 completed inside rounds
0026 Completed outside rounds.
0705 RCT notified son of ~~[illegible]~~ 2-18-12 some contamination on catch pan 500dpm alpha, RCTs will clean & survey
0710 SOS has been notified.
0757 late entry 1155 Inside and outside rounds signed off by SOS
0815 mode change performed TASD-69 and WCRRF yard now in operations. Starting movement out of 50-69.
0825 completed movement out of 9. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transpor vehicle permission granted
0832 to lower vehicle access barrier.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is out.
0852 Starting the movement to transport vehicle
0906 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift. SOS has been notified and operators will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69.
1009 Completed movement out of 50-69.
1010 OK to continue operations, per CSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~[illegible]~~ 2-18-12 turnover with Terri Coleman - Cleland
1051 Assuming WCRRF operations center - JColeman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - JColeman

SIGNATURE _____ DATE _____

304

PROJECT NAME _____ NOTEBOOK NO. _____

12-18-12 continued from previous page
1155 PPE check SAT.
1159 Bagging off 90719 by JC 12-18-12 and I POC bagging on 90
1207 Shift turnover with CCO Clarissa Ulbride & Coleman
1208 Assuming WCRRF operations center - Ulbride
1210 Starting movement into 50-69
1235 Bag on / bag off complete.
1343 Starting movement out of 50-69, PPE check is Sat
1400 Completed movement out of 50-69
1409 bagging on 90728, bagging off 90722
1413 PPE check is sat.
1440 bagging off 90728, bagging on 90723
1445 Starting outside rounds
1450 Bag in / bag off complete. PPE check is sat.
1500 Item 6.1 is 605 per CSE OK to proceed.
1504 Inside rounds complete.
1509 Outside rounds complete.
1551 bagging off 90723 and POC. PPE check is sat
1605 bag off is complete
1615 mode change performed TRSD-69 and WCRRF yard
in warm ~~standby~~ standby.
12-18-12 1643 end of day WCRRF operations center - Ulbride

JW

Refurbishment this day

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

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position M.M.A. M.J.

0605 Conducted shift brief discussed staying focused and that pics connu were on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed at 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position Jun J.

0815 Mode Change Complete in Operations Mode in WCRR Yard and D-69.

69 0830 Late Entry (JJ) At 0705 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by SOM that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging an first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the Floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag an another drum. Finish the bag off's and call over for further instruction.

1015 Resuming Operations. Pictures taken of the spring. Operators are unable to identify where it may have come from. ~~Per Ch~~ Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. Jun J.

1101 Assuming Position M.M.A. M.J.

1108 Bags at Bagging on 40719 RE Check

1155 RE Check

1159 Bagging off and Bagging on 40722

Continued from next Page

1404 bagging off and bagging on 90728
1413 RPG Check
1440 bagging on and bagging off G10723
1530 Reviewed inside and outside Counds.
1605 Bagged off final drum of day
1615 12.18.12 Mode change complete INCERF En warm
12.18.12 1630 End of shift securing SOS Position
1119

To Further entries on this Page

PROJECT NAME 12/18/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position. L.C.

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 Supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Bagging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F

0832 Released expedited W.O # 427964-01 to paint stairs on east end of Bldg 50-84.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment / processes. Work pause lifted.

1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on line.

1400 Went to TA-44 to sign off / review Jan 13 work packages.

1530 Completed procedure validation for Monthly FSS Valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

PROJECT NAME 12/18/12 NOTEBOOK NO

1615 Completed mode change! WCER Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1630 Secures SOM position

No Further Entries this Page

SIGNATURE

DATE 12/18

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0005
Examination Date:	1/15/2013
Waste Container ID:	92481
Video/Audio Recorded Media Number:	LA-RTR2-13-0005 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 76.5 kg Tare Wt.: 33.4 kg Net Wt.: 43.1 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: 92481

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, scrap metal, metal lid

AM:

OM:

OI:

C: Fiberboard insert sleeve, fiberboard material, tape roll

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):	16.6
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	10.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	8.5
Soils (S):	
Total WMP Weight:	43.1

CCP Radiography Data Sheet

Waste Container ID: 92481

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
Dennis Powell Eric Lyles	Eric Lyles Dennis Powell	1-15-13 1/15/2013

NDA 2000 Assay Report

Item Information

Item ID:	92481	Count Sequence Number:	14857
Operator:	DCLTD231\Operator		
Assay Start:	1/17/2013 3:47:43 PM		
Description 1:	2LANDA1080		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 43.1 kg	Net:	43.1 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.230 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:	14857	Batch Number:	2LANDA1080
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92481	Analysis Date:	1/17/2013

Net Weight	43100.0 g		
Pu mass	2.27E-001	+-	3.61E-002 g
TRU Alpha Activity	3.76E-001	+-	1.88E-001 Ci
TRU Activity Concentration	8.73E+003	+-	4.35E+003 nCi/g
Pu-239 Equivalent Activity	3.77E-001	+-	1.88E-001 Ci
Pu-239 FGE	2.16E-001	+-	3.60E-002 g
Decay heat	1.25E-002	+-	6.27E-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	1.00E-007
U233	<LLD	<LLD	0.00E+000	7.69E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.21E-007
NP237	5.62E-003	4.02E-006	4.35E-007	3.83E-007
PU238	2.08E-005	3.61E-004	7.95E-005	7.81E-005
U238	<LLD	<LLD	0.00E+000	2.45E-006
PU239	2.13E-001	1.34E-002	2.26E-003	2.90E-003
PU240	1.36E-002	3.13E-003	6.89E-004	6.77E-004
AM241	1.04E-001	3.59E-001	1.88E-001	6.60E-003
PU241	2.70E-004	2.81E-002	6.20E-003	6.09E-003
PU242	4.54E-005	1.80E-007	3.97E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-22-13

ITR: _____ Date: 1-28-13

Automated Independent Technical Review

Count Sequence Number: 14857 Batch Number: 2LANDA1080
Counter ID: HENC #2
Container ID: 92481
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/17/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	OK
Add-a-Source correction factor was set to one.	OK
Add-a-Source correction factor is less than n-sigma * the correction factor error.	OK
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	OK
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; 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	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.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 1/22/13

Waste Container ID: **92481**

BDR Number: **LA13FG2004**

Sampling Date: **1/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	2541.15	
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\130122c\
Data File : 92481.D
Acq On : 22 Jan 2013 3:40 pm (#1); 22-Jan-13, 15:39:19 (#2)
Operator : GR
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 22 15:48:14 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Oct 10 14:26:44 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.584	96	4332390	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.914	117	3859497	177.00	ppmv	0.01
Target Compounds						Qvalue
1) Hydrogen	1.552	GC1	18061	2541.15	ppmv	100

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

tune.m Thu Jan 24 09:13:06 2013

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:	92482
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.: 168.5 kg Tare Wt.: 145.1 kg Net Wt.: 23.4 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:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92482

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):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	22.4
Soils (S):	
Total WMP Weight:	23.4

CCP Radiography Data Sheet

Waste Container ID: 92482

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:

Benito Maestas		1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92482	Count Sequence Number:	21821
Operator:	D3PW2DK1\operator		
Assay Start:	1/10/2013 3:49:44 PM		
Description 1:	1LANDA1695		
Description 2:	POC - Gross Wt. = 168.5 Kg		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 23.4 kg	Net:	23.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.713 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:	21821	Batch Number:	1LANDA1695
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92482	Analysis Date:	1/10/2013

Net Weight	23400.0 g		
Pu mass	4.37E+000	+-	2.17E+000 g
TRU Alpha Activity	4.08E+000	+-	7.20E-001 Ci
TRU Activity Concentration	1.75E+005	+-	3.08E+004 nCi/g
Pu-239 Equivalent Activity	4.09E+000	+-	7.20E-001 Ci
Pu-239 FGE	4.14E+000	+-	2.04E+000 g
Decay heat	1.36E-001	+-	2.40E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.15E-002	4.39E-005	8.24E-006	2.35E-006
PU238	4.02E-004	6.95E-003	3.45E-003	3.47E-005
PU239	4.10E+000	2.58E-001	1.28E-001	1.29E-003
PU240	2.62E-001	6.02E-002	2.99E-002	3.01E-004
AM241	1.08E+000	3.76E+000	7.08E-001	4.99E-002
PU241	5.21E-003	5.42E-001	2.69E-001	2.70E-003
PU242	8.74E-004	3.47E-006	1.72E-006	0.00E+000
SR90	1.57E-008	2.17E-006	8.12E-007	0.00E+000
CS137	2.47E-008	2.17E-006	8.12E-007	5.77E-007
U233	<LLD	<LLD	0.00E+000	4.55E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.37E-006
U238	<LLD	<LLD	0.00E+000	1.29E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-13

ITR: _____ Date: 1-16-2013

Automated Independent Technical Review

Count Sequence Number: 21821 Batch Number: 1LANDA1695
Counter ID: MCS HENC #1
Container ID: 92482
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2013

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 Chambers Date: 1-14-13

Waste Container ID: **92482**

BDR Number: **LA13FG2080**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	426.78	
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	19.69	
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	11.24	
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130710C\
Data File : 92482.D
Acq On : 10 Jul 2013 1:10 pm (#1); 10-Jul-13, 13:09:47 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 13:18:15 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	3.490	96	4108787	205.75 ppmv	-0.03
15) Chlorobenzene-d5	5.842	117	3359060	177.50 ppmv	-0.02
Target Compounds					Qvalue
1) Hydrogen	1.611	GC1	3209	426.78 ppmv	100
7) Acetone	1.372	58	23999	19.69 ppmv	67
17) Toluene	4.801	92	135080	11.24 ppmv	97

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

Working Copy
Date: 12-18-12 JL

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90720

6.2[4] Date Processed: 12/18/12

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

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

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

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

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

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

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

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

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

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

Performed By: B. Foosham / B. Foosham 123783 / 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90720

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 357.4 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 357.4 ~~Ø~~ B.S. 12/8/17 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:

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90720

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92476			
10.1[4]	Daughter Drum Filter No.	AM-1041		N	
10.1[4]	Daughter Drum Bag Filter No.	L-4394		A	
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP			
	Model No.	63MC152CDVF			
	Serial No.	L-4372			
	Date of Manufacture	7/12			
10.2[5]	POC ID No	92477			
10.2[7][B]/10.2[6]	POC Item Description	Kitty Litter Plastic Salts			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635			
10.2[14]	POC Assembly Gross Weight (lb)	375.2 lbs		N	
10.2[15]	POC Rad. Survey Results (mrem/hr)	1,900.5 mR			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N			
10.3[5][A]	Free Liquid Volume/Units	A		A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	N A			
10.3[9][A]	PCB-contaminated Waste Description	N			
10.3[9][B]	PCB Item ID No.	A			
10.3[10]	Remaining Waste Description	SEE Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Paper Towels Kitty Litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90720

Comments: POC STEEL LID, WOOD, POLY LID, KITTY LITTER, PLASTIC, SALTS, FIBERBOARD LID, 1 FANTASTIK CONTAINER EMPTIED AND CUT INTO HALF.

11.1[1] Performed By: B. FORSWAM B. [illegible] 735235 12/18/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] [illegible] [illegible] 13/12 8
SOS or designee (print) Signature Z # Date Time

Working Copy
Date: 12-11-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

5.[8] Overpack filtered vent information:

Manufacturer: NucFil
Model No.: 013
Serial No.: IL-226
Manufacture Date: 9-11

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

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

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

Performed By: BRIAN GALLEGOS / Bri Gallegos / 267129 / 12-11-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Bri Gallegos / 267129 / 12-11-12
Waste Handling Technician (print) Signature Z# Date

GM 1.3.13

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

8.1[7] Reviewed By: GMK / GMK / 149255 / 1.3.13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 12-18-12 JC

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92478

7.[25] Overpack drum closure ring torque wrench information: BR 12/18/12

M&TE No.: ~~058367~~ 02115

Cal. Expiration Date: B.F. 12/18/12 3/~~13~~ 16/13 6/11/13

Range in ft-lb: 16-80 ft-lbs

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: B. Forsman / B. Forsman 235255 12/18/12
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): 318.0 lb

Comments: N/C

8.1[1] Performed By: B. Forsman / B. Forsman 235255 12/18/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: G Mh / G Mh 144255 1-2-13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92476

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 416184
Lot #: 0229224
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPUC 1.5-2.5 PUC
Serial #: L4394
Date of Manufacture: 7/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: AM-1041
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 and +/- 6% ccw	Tolerance:	+/- 3% cw and +/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: BRIAN GALLEGOS Signature: [signature] Z#: 267129

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 77.0
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] Z#: 267129 Date: 12-11-12
Verifier Print: B. FORDHAM Verifier Sign: B. Ford Z#: 235635 Date: 12/18/12

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

DRUM ID#: 92476

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: BF 12/18/12

MT&E #: ~~038567~~ 021151

Cal expiration date: ~~3/16/13~~ 6/11/13

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

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) 164.8

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: B. FORDHAM B. F. Date 12/18/12

Verifier Print/Sign: [illegible] Date: 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

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Production Control

Container ID: 90720 Container Type: POC Gross Weight (lbs): 352

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-514; EL-563

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-787

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 LR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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, ~~D008~~, & 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 / Production Control (Print) / Signature / 100681 / Z Number / 9/4/12 / Date

WDP Engineering

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

Processing Determination: ✓ Accept Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 42 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 chromium, lead, and mercury. No chemicals present. May require RWP for >100 + <1000 mrem/hr. RTR BDR inventory shows homogeneous material, plastic bag, + cloth material

Performed By: Valerie Rhodes / WDP Engineering (Print) / Valerie Rhodes / Signature / 112609 / Z Number / 10/3/12 / Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevlar glove when processing waste. Do Not push or press on waste with hands.

Processing Determination: ✓ Accept Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez / TRU Remediation Operations (Print) / Signature / 221452 / Z Number / 10-15-12 / Date

OR Z# 219750 10/19/12

HS REVIEW RB 206362 10-4-12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90720
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 160.0 kg. Tare Wt: 145.1 kg. Net Wt: 14.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90720

Section 3: Container Inventory and Comments (Detailed descriptions)
Cloth material
Plastic bag
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	2.0
Rubber (R):	
Plastics (waste materials) (XPM):	0.2
Organic Matrix (OR):	
Inorganic Matrix (IN):	12.7
Soils (S):	
Total WMP Weight:	14.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 3 of 3

Waste Container ID: 90720

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 4.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	90726					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PZC					
Filtered Vent Type (5.[1])	190s					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON, 237975
CCP (Print) Z #

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

Comments: Per attached email, container has been verified as PZC

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

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

6.1[3] Performed By: SUSAN RAMSEY, [signature], 100681, 10/10/12
Waste Handling Operator (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90720.D
Acq On : 5 Oct 2012 2:25 pm (#1); 05-Oct-12, 14:24:38 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 14:32:57 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	3.545	96	5964693	201.25 ppmv	0.00
15) Chlorobenzene-d5	5.871	117	5268986	177.00 ppmv	0.00

Target Compounds	Qvalue

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

03
2-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Cleland
0001 Starting inside and outside rounds
0017 Item d1 is OOS, per CSE documentation OK to proceed.
0021 completed inside rounds
0026 Completed outside rounds.
0705 RCT received scan of ~~[illegible]~~ 2-18-12 some contamination on catch pan 50dpm alpha, RCTs will decon resurvey
0710 SOS has been notified.
0759 late entry 1055 Inside and Outside rounds signed off by SOS (W)
0815 mode change performed TASD-69 and WCRRF yard now in operations. starting movement out of 50-69.
0825 Completed movement out of 50-69. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transpor vehicle. permission granted
0832 to lower vehicle access barrier.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle
0906 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift. SOS has been notified and operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 starting movement out of 50-69.
1009 Completed movement out of 50-69.
1010 OK to continue operations, per CSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~[illegible]~~ 2-18-12 turnover with Terri Coleman - Cleland
1051 Assuming WCRR operations center - JColeman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - JColeman

SIGNATURE _____ DATE _____

304

PROJECT NAME _____ NOTEBOOK NO. _____

12-18-12 continued from previous page
1155 PPE check SAT.
1159 Bagging off 90719, b.i.c 12-18-12 and 1 POC, bagging on 90
1207 Shift turnover with CCO Clarissa Ulbarde. Foreman
1208 Assuming WCREF operations. Carter, Ulbarde
1210 Starting movement into 50-69
1235 Bag on, bag off complete.
1343 Starting movement out of 50-69, PPE check is Sat
1400 Completed movement out of 50-69
1409 bagging on 90728, bagging off 90722
1413 PPE check is Sat.
1440 bagging off 90728, bagging on 90723
1445 Starting outside rounds
1450 Bag on, bag off complete. PPE check is sat.
1500 Item 61 is DOS per CSE OK to proceed.
1506 Inside rounds complete.
1509 outside rounds complete.
1551 bagging off 90723 and POC. PPE check is sat
1605 bag off is complete
1615 mode change performed TA50-69 and WCREF yard no
on warm ~~Standby~~ 12-18-12 Standby.
12-18-12 1643 end of day WCREF operations decline. Ulbarde

SW

Refer to entries this page

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

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0605 Conducted shift brief discussed staying focused and that pics cannot work on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed at 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position [illegible]

0815 Mode Change Complete in Operations Mode in WCRR Yard and SD-69.

69 0830 Late Entry (JJ) At 0205 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by SOM that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call out for further instructions.

1015 Resuming Operations. Pictures taken of the spring. Operators are unsure to identify where it may have come from ~~Per CE~~ Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. [illegible]

1101 Assuming Position [illegible]

1108 Bags at Bagging in 90719 PPE Check

1155 PPE Check

1159 Bagging off and Bagging on 90722

Continued from next page

1404 Bagging off and bagging on 90728
1413 RPG Check
1440 Bagging on and bagging off G10723
1530 Reviewed inside and outside Counds.
1605 Bagged off final drum of day
1615 12.18.12 Shift change complete INCERF En warm
12.18.12 1630 End of shift securing SOS Position [illegible]
LMG

To further entries on this page

0600 Assumed WCRR SOM position. L.C.

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Bagging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F

0832 Released expedited W.O # 427964-01 to paint stairs on east end of Bldg 50-84.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.

1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on l.sy.

1400 Went to TA-44 to sign off/review Jan 13 work packages.

1530 Completed procedure validation for Monthly FSS valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

22

PROJECT NAME 12/18/12 NOTEBOOK NO

1615 Completed mode change! WCRR Yard / Blds 50-69 from Operations/Operations to Warm/Warm.

1630 Secures SOM position

No Further Entries this Page

SIGNATURE

DATE 12/18

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0013
Examination Date:	1/28/2013
Waste Container ID:	92476
Video/Audio Recorded Media Number:	LA-RTR2-13-0013 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

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

CCP Radiography Data Sheet

Waste Container ID: 92476

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Wire, metal lids, hardware

AM:

OM:

OI:

C: Fiberboard packing material, fiberboard insert sleeve

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):	18.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	9.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	2.0
Soils (S):	
Total WMP Weight:	41.1

CCP Radiography Data Sheet

Waste Container ID: 92476

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		1/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92476	Count Sequence Number:	14939
Operator:	DCLTD231\Operator		
Assay Start:	1/30/2013 12:13:13 PM		
Description 1:	2LANDA1088		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 41.1 kg	Net:	41.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.250 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: 14939
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 92476

Batch Number: 2LANDA1088
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/30/2013

Net Weight	41100.0 g		
Pu mass	3.81E-001	+-	4.03E-002 g
TRU Alpha Activity	2.10E-001	+-	2.28E-002 Ci
TRU Activity Concentration	5.10E+003	+-	5.55E+002 nCi/g
Pu-239 Equivalent Activity	2.10E-001	+-	2.28E-002 Ci
Pu-239 FGE	3.60E-001	+-	4.01E-002 g
Decay heat	6.94E-003	+-	7.61E-004 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	9.20E-010	1.27E-007	6.21E-008	0.00E+000
CS137	1.45E-009	1.27E-007	6.21E-008	6.96E-008
U233	<LLD	<LLD	0.00E+000	6.61E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.91E-007
NP237	4.93E-003	3.52E-006	3.93E-007	3.17E-007
PU238	3.50E-005	6.06E-004	1.09E-004	7.33E-005
U238	<LLD	<LLD	0.00E+000	3.04E-006
PU239	3.58E-001	2.25E-002	2.52E-003	2.72E-003
PU240	2.29E-002	5.26E-003	9.48E-004	6.36E-004
AM241	5.22E-002	1.81E-001	2.27E-002	5.78E-003
PU241	4.54E-004	4.72E-002	8.51E-003	5.71E-003
PU242	7.63E-005	3.03E-007	5.46E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-1-2013

ITR: _____ Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 14939
Batch Number: 2LANDA1088
Counter ID: HENC #2
Container ID: 92476
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
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
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 1-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92476**

BDR Number: **LA13FG8009**

Sampling Date: **2/6/2013**

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\130206C\
Data File : 92476.D
Acq On : 6 Feb 2013 2:34 pm (#1); 6 Feb 2013 2:33 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 14:41:40 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	3.259	96	2604668	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2348135	179.50 ppm	0.00

Target Compounds Qvalue

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

37

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:	92477
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 C&D
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.: 170.0 kg Tare Wt.: 145.1 kg Net Wt.: 24.9 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 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92477

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve(Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.9
Soils (S):	
Total WMP Weight:	24.9

CCP Radiography Data Sheet

Waste Container ID: 92477

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:

Benito Maestas		1/8/2013
Print Name	Signature	Date

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

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

Item ID:            92477              Count Sequence Number:  21820
Operator:           D3PW2DK1\operator
Assay Start:        1/10/2013   3:05:27 PM
Description 1:      1LANDA1695
Description 2:      POC - Gross Wt. = 170.0 KG.
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:        24.9   kg        Net:    24.9 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.720 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:	21820	Batch Number:	1LANDA1695
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92477	Analysis Date:	1/10/2013

Net Weight	24900.0 g		
Pu mass	9.70E+000	+-	2.16E+000 g
TRU Alpha Activity	3.74E+000	+-	5.87E-001 Ci
TRU Activity Concentration	1.50E+005	+-	2.36E+004 nCi/g
Pu-239 Equivalent Activity	3.76E+000	+-	5.87E-001 Ci
Pu-239 FGE	9.16E+000	+-	2.03E+000 g
Decay heat	1.23E-001	+-	1.95E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.66E-002	3.33E-005	6.30E-006	2.15E-006
PU238	8.92E-004	1.54E-002	3.44E-003	3.50E-005
PU239	9.11E+000	5.73E-001	1.28E-001	1.30E-003
PU240	5.82E-001	1.34E-001	2.98E-002	3.03E-004
AM241	8.68E-001	3.01E+000	5.72E-001	4.47E-002
PU241	1.16E-002	1.20E+000	2.68E-001	2.73E-003
PU242	1.94E-003	7.71E-006	1.72E-006	0.00E+000
SR90	1.03E-008	1.43E-006	6.43E-007	0.00E+000
CS137	1.63E-008	1.43E-006	6.43E-007	5.45E-007
U233	<LLD	<LLD	0.00E+000	4.10E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.23E-006
U238	<LLD	<LLD	0.00E+000	1.28E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1-14-13

ITR: [signature] Date: 1-16-2013

Automated Independent Technical Review

Count Sequence Number: 21820 Batch Number: 1LANDA1695
Counter ID: MCS HENC #1
Container ID: 92477
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2013

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

Expert Review by: Sheri Chamberlin Date: 1-14-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92477**

BDR Number: **LA13FG2080**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	742.77	
74-82-8	Methane	142.14	U
67-56-1	Methanol	77.92	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	29.32	
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	20.81	
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130710C\
Data File : 92477.D
Acq On : 10 Jul 2013 12:55 pm (#1); 10-Jul-13, 12:55:09 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 13:07:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.565	96	4434529	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.897	117	3634651	177.50 ppmv	0.04
Target Compounds					Qvalue
1) Hydrogen	1.608	GC1	5585m	742.77 ppmv	
4) Methanol	0.834	31	27610	77.92 ppmv	100
7) Acetone	1.379	58	38573	29.32 ppmv	81
17) Toluene	4.860	92	270718	20.81 ppmv	97

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

Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90721

6.2[4] Date Processed: 12/18/12

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7/31/12

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ 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: B. Fordham / B. Fordham 235635 / 12/18/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90721

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 343.2 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 343.2 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:

EWMO-FOD (print)	Signature	Date

ATTACHMENT 1

Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90721

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92479		N	
10.1[4]	Daughter Drum Filter No.	AM-1032		A	
10.1[4]	Daughter Drum Bag Filter No.	L-4344			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.	N			
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	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			N	
10.3[7][A]	Opaque/Non-penetrable Item Description:	N / A		N	
10.3[9][A]	PCB-contaminated Waste Description	N / A			
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	70%			
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.: 90721

Comments: POC STEEL LID, WOOD LID, POLY LID, FIBERBOARD LID, KITTY LITER, SALTS, BOLTS, PLASTIC

11.1[1] Performed By: B. Fordham / B. Zook 235635 12/18/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] 14255 13:12 [illegible]
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.: 413724
Lot No.: 2401M
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 16-227
Manufacture Date: 9/11

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

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

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

Performed By: BRIAN GALLEGOS / B. Donny 2067129 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Donny 2067129 12-11-12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: G. Mk / [signature] 149235 1.3.13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-18-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92480

7.[25] Overpack drum closure ring torque wrench information: R.F. 12/4/12

M&TE No.: ~~038367~~ 021151
Cal. Expiration Date: 3/16/13 6/11/13
Range in ft-lb: 10-80 ft lbs
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: B. Fordham / B. Fordham 235251 12/18/12
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): 318 lbs lb

Comments: N/C

8.1[1] Performed By: B. Fordham / B. Fordham 235251 12/18/12
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: Gulk / [illegible] 149235 1.3.13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92479

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 #: 6CPVC 1-3-2 SPVC
Serial #: L-4344
Date of Manufacture: 7-12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIC
Model #: 019-DS
Serial #: AM-1032
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038367
Cal Expiration Date:	9-26-13	Cal Expiration Date:	3-16-13
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.

[x] Yes [ ] No

Print Name: Eddie Rios Signature: [signature] Z#: 197822

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 77.0 lbs
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
- [ ] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID that the top of Attachments 1 and 2

Operator Print: Eddie Rios Operator Sign: [signature] Z#: 197822 Date: 7-7-12

Verifier Print: B Forsum Verifier Sign: B. Forsum Z#: 235635 Date: 12/18/12

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

DRUM ID#: 92479

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: B.F. 12/18/12

MT&E #: ~~038367~~ 021151

Cal expiration date: 3/16/2013 5/11/13

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

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) 208.8

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: B. Fordham B.F. Date 12/18/12

Verifier Print/Sign: Steven Mandrag Steven Mandrag Date: 12-18-12 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

2

Production Control

Container ID: 90721 Container Type: POC Gross Weight (lbs): 343

Liner Seal #: None Filter Prefix: None Filter Serial #: BL-1383; BL-1697

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-301

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 volume 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 / 9/4/12 / Date

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 33 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. RTR BDR inventory shows homogeneous material and plastic bags/horsetails & lids

Performed By: Valerie Rhodes / WDP Engineering (Print) / Valerie Rhodes / Signature / 1/2009 / Z Number / 10/3/12 / 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. Use Kevlar glove when processing waste.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Perez / TRU Remediation Operations (Print) / Signature / 221452 / Z Number / 10-15-12 / Date

LL Z# 20 Updated Z# 249750 10/19/12

HS REVIEW: AS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90721
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 156.0 kg. Tare Wt: 145.1 kg. Net Wt: 10.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90721

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bags, horsetails, plastic lids Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	9.9
Soils (S):	
Total WMP Weight:	10.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 3 of 3

Waste Container ID: 90721

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments Block, except for Question 4.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	90721					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	1910S					
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])	E ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	E ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	E ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: Per attached email, container has been verified as 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: SUSAN RAMSEY (Waste Handling Operator (print)), Susan Ramsey (Signature), 100681 (Z #), 10/10/12 (Date)

InstName : Unit-2

Quantitation Report QT Reviewed:

Data Path : C:\msdchem\1\DATA\12:005c\
Data File : 9072L.D
Acq On : 5 Oct 2012 3:10 pm (#1); 05-Oct-12, 15:1[illegible] #2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019D5,unobstructed (Sta #1); [illegible] #2)
ALS Vial : [illegible] Sample Multiplier: 1

Quant Time: Oct 05 15:18:51 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	% or Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.607	96	6223456	201.25 ppmv	0.07
15) Chlorobenzene-d5	5.923	117	5536109	197.06 ppmv	[illegible]

Target Compounds						Qvalue

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

03
2-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Overlander
0001 Starting inside and outside rounds
0017 Item 21 is OOS, per CSE documentation OK to proceed.
0021 Completed inside rounds
0026 Completed outside rounds.
0705 RCT received sam of ~~[illegible]~~ 2-18-12 none contamination on catch pan 50dpm alpha, RCTs will clean resurvey
0710 SOS has been notified.
0759 late entry 1655 Inside and outside rounds signed off by SOS
0815 mode change performed TASD-69 and WCRRF yard now in operations. starting movement out of 50-69.
0825 completed movement out of 50-69. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transpor vehicle. permission granted to lower vehicle access barrier.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is out.
0852 Starting the movement to transport vehicle
0906 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift. SOS has been notified and operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69.
1009 Completed movement out of 50-69.
1010 OK to continue operations, per CSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~[illegible]~~ 2-18-12 turnover with Terri Coleman - Overlander
1051 Assuming WCRR operations center - JColeman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - JColeman

SIGNATURE _____ DATE _____ 20

304

PROJECT NAME _____ NOTEBOOK NO. _____

12-18-12 continued from previous page
1155 PPE check SAT.
1159 Bagging off 90719 by JC 12-18-12 and 1 POC bagging on 90
1207 Shift turnover with CCO Clarissa Ulbride. 90 Coleman
1208 Beginning WCRRF operations center - CUlbride
1210 Starting movement into 50-69
1235 Bag on / bag off complete.
1343 Starting movement out of 50-69. PPE check is Sat
1400 Completed movement out of 50-69
1409 bagging on 90728, bagging off 90722
1413 PPE check is Sat.
1440 bagging off 90728, bagging on 90723
1445 Starting outside rounds
1450 Bag in / bag off complete. PPE check is sat.
1500 Item 61 is OOS per CSE OK to proceed.
1506 Inside rounds complete.
1509 Outside rounds complete.
1551 bagging off 90723 and POC. PPE check is sat
1605 bag off is complete
1615 mode change performed TRSD-69 and WCRRF yard mo
in warm ~~Standby~~ Standby.
12-18-12 1643 end of day WCRRF operations decline - CUlbride

JW

Corrections initialed this page

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

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0605 Conducted shift brief discussed staying focused and that pics cannot word on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed At 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position [illegible]

0815 Mode Change Complete in Operations Mode in WCRR Yard and SD-69.

69 0830 Late Entry (JJ) At 0205 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by SOM that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging an first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag an another drum. Finish the bag off's and call over for further instruction.

1015 Resuming Operations. Pictures taken of the spring. Operators are unable to identify where it may have come from ~~Per Ch~~ Per CSE only spring on the drum lift would be the tensioner for the Cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez.

1101 Assuming Position [illegible]

1108 Bags at Bagging on 90719 RE Check

1155 RPG Check

1159 Bagging off and Bagging on 90722

Continued from next Page

1406 bagging off and bagging on 90728
1413 RPG Check
1440 bagging on and bagging off G10723
1530 Reviewed Inside and outside Counds.
1605 Bagged off Final drum of day.
1615 12.18.97 Mod. change Complete INCERF En warm
12.18.97 1630 End of shift Secoring SOS Position
LMG

No Further entries on this Page

0600 Assumed WCRR SOM position. L.C.

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Worker disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Bagging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F

0832 Released expedited W.O # 427964-01 to paint stairs on east end of Bldg 50-54.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.

1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on line.

1400 Went to TA-44 to sign off/review Jan 13 work packages.

1530 Completed procedure initiation for Monthly FSS Valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

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

22 PROJECT NAME 12/18/12 NOTEBOOK NO

1615 Completed mode change! WCER Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1630 Secures 50M position

No further entries this page

SIGNATURE

DATE 12/18

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0008
Examination Date:	1/18/2013
Waste Container ID:	92479
Video/Audio Recorded Media Number:	LA-RTR2-13-0008 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 94.5 kg Tare Wt.: 33.4 kg Net Wt.: 61.1 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: 92479

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Pipe component lid, metal hardware

AM:

OM:

OI:

C: Fiberboard liner sleeve (POC), cloth, fiberboard packaging material (POC)

R:

XPM: 90 mil plastic liner lid, plastic bags

OR:

IN: Absorbent

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard 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):	16.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	21.1
Soils (S):	
Total WMP Weight:	61.1

CCP Radiography Data Sheet

Waste Container ID: 92479

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		1/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92479	Count Sequence Number:	21989
Operator:	D3PW2DK1\operator		
Assay Start:	2/5/2013 11:56:13 AM		
Description 1:	1LANDA1708		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 61.1 kg	Net:	61.1 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.330 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:	21989	Batch Number:	1LANDA1708
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92479	Analysis Date:	2/5/2013

Net Weight	61100.0 g		
Pu mass	4.82E+000	+-	9.98E-001 g
TRU Alpha Activity	1.77E+000	+-	1.89E-001 Ci
TRU Activity Concentration	2.90E+004	+-	3.09E+003 nCi/g
Pu-239 Equivalent Activity	1.78E+000	+-	1.89E-001 Ci
Pu-239 FGE	4.55E+000	+-	9.37E-001 g
Decay heat	5.84E-002	+-	6.26E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.48E-002	2.49E-005	3.06E-006	1.13E-006
PU238	4.43E-004	7.66E-003	1.59E-003	3.43E-005
PU239	4.52E+000	2.84E-001	5.89E-002	1.27E-003
PU240	2.89E-001	6.64E-002	1.38E-002	2.98E-004
AM241	4.07E-001	1.41E+000	1.79E-001	2.55E-002
PU241	5.73E-003	5.96E-001	1.23E-001	2.67E-003
PU242	9.64E-004	3.83E-006	7.93E-007	0.00E+000
SR90	4.37E-009	6.03E-007	3.12E-007	0.00E+000
CS137	6.87E-009	6.03E-007	3.12E-007	3.47E-007
U233	<LLD	<LLD	0.00E+000	2.19E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.40E-007
U238	<LLD	<LLD	0.00E+000	7.11E-006

Errors quoted at 1.000 sigma

Operator: Dan R [illegible] Date: 2-6-13

ITR: [illegible] Date: ~~2-6-13~~ 2-7-13 A.G. 2-7-13

Automated Independent Technical Review

Count Sequence Number: 21989 Batch Number: 1LANDA1708
Counter ID: MCS HENC #1
Container ID: 92479
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 2/5/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Cosmic Ray Rejection Analysis complete with warnings. - The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. 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: 2-6-13

Waste Container ID: **92479**

BDR Number: **LA13FG2013**

Sampling Date: **2/8/2013**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130208C\
Data File : 92479.D
Acq On : 8 Feb 2013 12:26 pm (#1); 08-Feb-13, 12:25:40 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 08 12:35:10 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.548	96	5032427	201.25	ppmv	-0.02
15) Chlorobenzene-d5	5.887	117	4419438	177.00	ppmv	-0.01

Target Compounds	Qvalue

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

Working Copy
Date: 12-18-12 JL

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90722

6.2[4] Date Processed: 12/18/12

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

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

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

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

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

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

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

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

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

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

Performed By: Michael Ramos [signature] 182723 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90722

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 343.3 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 343.3 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:

EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90722

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92484 MR 12/8/12			
10.1[4]	Daughter Drum Filter No.	Am-~~1013~~ 1031		N	
10.1[4]	Daughter Drum Bag Filter No.	L-4390		A	
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)	NA			
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:			NA	
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 (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90722

Comments: plastic, bolts, metal poc lid, cardboard scalps

11.1[1] Performed By: Michael Romero Michael Romero 182723 / 12/18/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: G M [illegible] 149235 / 1-3-13 · 0900
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-11-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-235
Manufacture Date: 9-11

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

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

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

Performed By: BRIAN GALLEGOS / [signature] 1267129 / 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] 1267129 12-11-12
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: [signature] / [signature] 1495 / 12-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-18-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92485

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

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

Performed By: Michael Romero [signature] 182723 12/18/12
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 323.6 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 12/18/12
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: [signature] [signature] 146035 1-3-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: ~~92481~~ 92484 B.F. 12/15/12

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 #: 4160184
Lot #: 02299224
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 1.5-2.5 PVC
Serial #: 2-4390
Date of Manufacture: 7/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS B.F. 12/15/12
Serial #: AM-~~1031 to 13~~ 1031
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 and +/-6% CCW	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: BRIAN GALLEGOS Signature: [signature] Z#: 267129

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 77.0 lbs
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: BRIAN GALLEGOS Operator Sign: [signature] Z#: 267129 Date: 12-11-12

Verifier Print: B. FORDHAM Verifier Sign: [signature] Z#: 235655 Date: 12/18/12

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

B.F. 12/18/12 92484

DRUM ID#: ~~907~~ ~~92485~~ B.F. 12/18/12

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: 02/151

MT&E #: ~~088367~~ B.F 12/18/12

Cal expiration date: ~~3/16/15~~ 6-11-13

Range/ Value (ft-lbs): ~~10-50 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) 214.8

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: B. Fordham Date 12/18/12

Verifier Print/Sign: Michael Romero Date: 12/18/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90722 Container Type: POC Gross Weight (lbs): 343

[illegible]ner Seal #: None Filter Prefix: None Filter Serial #: EL-502; EL-582

[illegible] Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-727

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 NR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 / Production Control (Print) / Signature / 100681 / Z Number / 9/4/12 / Date

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: 33 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

RTR BDR inventory shows homogeneous material & plastic bag.

Performed By: Valerie Rhodes / WDP Engineering (Print) / Valerie Rhodes / Signature / 112609 / Z Number / 10/3/12 / Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use proper PPE when processing. Do not push or press on waste with hands; Utilize heavier 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) / Jose Perez / Signature / 122452 / Z Number / 10-10-12 / Date

Z# 249750 10/19/12

IHS REVIEW. RA 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90722
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 156.0 kg. Tare Wt: 145.1 kg. Net Wt: 10.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90722

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	0.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	10.8
Soils (S):	
Total WMP Weight:	10.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90722

Section 5: RTR Summary (Questions answered YES will be explained in the Comments block, except for Question 1)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard	[signature]	1/20/12

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])	96727					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PCC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: Per attached email, container has been verified as PCC

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 #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90722.D
Acq On : 5 Oct 2012 1:17 pm (#1); 05-Oct-12, 13:16:43 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 13:25:02 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	3.561	96	6348066	201.25 ppmv	0.02
15) Chlorobenzene-d5	5.884	117	5583273	177.00 ppmv	0.00

Target Compounds	Qvalue

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

103
12-18-12 PROJECT NAME _____ NOTEBOOK NO _____

0000 Assuming WCRRF operations center - Orlando
0001 Starting inside and outside rounds
0017 Item 61 is OOS, per OSE documentation OK to proceed.
0021 Completed inside rounds
0026 Completed outside rounds.
0705 Pat rechecked some of ~~[illegible]~~ 12-18-12 some contamination on catch pan 50dpm alpha, RCTs will down resurvey
0710 SOS has been notified.
0757 late entry 1155 inside and outside rounds signed off by SOS
0815 mode change performed TASD 69 and WCRRF yard now in operations. starting movement out of 50-69.
0825 completed movement out of 9. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transport check permission granted to lower vehicle across barrier.
0837 Bag on complete. PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle
0906 vehicle across gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on piece by the drumlift SOS has been notified and operations will not be bagging on another drum. SOS has requested another pre operational check be done on drumlift notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69
1009 Completed movement out of 50 69
1010 OK to continue operations, per OSE spring is not from drum lift
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~[illegible]~~ 12-18-12 turnover with Terri Coleman - Orlando
1051 Assuming WCRR operations center - JColeman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - JColeman

SIGNATURE _____ DATE _____ 20 _____

PROJECT NAME _____ NOTEBOOK NO. _____

12-18-12 continued from previous page
1155 PPE check SAT.
1159 Bagging on 90719, b.c 12-18-12 and 1 POC. bagging on 90
1207 Shift turnover with CCO Clarissa Ulkinde. 2 Coleman
1208 Testing WCRRF operations center. Ulkinde
1210 Starting movement into SD-49
1235 Bag on, bag off complete.
1343 Starting movement out of SD 49. PPE check is Sat
1400 Completed movement out of SD-49
1409 bagging on 90728, bagging off 90722
1413 PPE check is sat.
1440 bagging off 90728, bagging on 90723
1445 Starting outside rounds
1450 Bag on, bag off complete. PPE check is sat.
1500 Item 61 is bad per CSE OK to proceed.
1506 Inside rounds complete.
1509 outside rounds complete.
1551 bagging off 90723 and POC. PPE check is sat
1605 bag off is complete
1615 mode change performed TASD-49 and WCRRF yard rou
on warm ~~Standby~~ Standby.
12-18-12 1643 end of day WCRRF operations declare Ulkinde

pw

Signature entries this page

SIGNATURE _____ DATE _____
READ AND UNDERSTOOD _____ DATE _____

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0605 Conducted shift brief discussed staying focused and that pics cannot were on box

0705 Shift brief Concluded.

0708 Late entry Rounds Reviewed At 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position [illegible]

0805 Mode Change Completed in Operations Mode in WCRR Yard and SD-69.

69 0830 Late Entry (JJ) At 0205 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by SOM that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call out for further instruction.

1015 Resuming Operations. Pictures taken of the spring. Operators are unable to identify where it may have come from ~~Per CL~~ Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. [illegible]

1101 Assuming Position [illegible]

1108 Bags of Bagging on 90719 PPE Check

1155 PPE Check

1159 Bagging off and Bagging on 90722

Continued from next page

1400 bagging off and bagging on 90728
1413 RPE Check
1440 bagging on and bagging off 910723
1530 Reviewed inside and outside rounds.
1605 Bagged off final drum of day
1615 12.18.92 Mode change complete INCERF En warm
12.18.92 1630 End of shift securing SOS Position
LMG

To further entries on this page

0600 Assumed WCRR SOM position. L.C.

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Worker disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 Supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Bagging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F

0832 Released expedited W.O # 427964-01 to paint stairs on east end of Bldg 50-54.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.

1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFL's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on line.

1400 Went to TA-44 to sign off/review Jan 13 work packages.

1530 Completed procedure validation for Monthly FSS Valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

PROJECT NAME 12/18/12 NOTEBOOK NO.

1615 Completed mode change! WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1630 Secures SOM position

No Further Entries This Page

SIGNATURE
READ AND UNDERSTOOD

DATE 12/18 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0010
Examination Date:	1/23/2013
Waste Container ID:	92484
Video/Audio Recorded Media Number:	LA-RTR2-13-0010 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 97.5 kg Tare Wt.: 33.4 kg Net Wt.: 64.1 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: 92484

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	22.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	28.1
Soils (S):	
Total WMP Weight:	64.1

CCP Radiography Data Sheet

Waste Container ID: 92484

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

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	1/23/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92484	Count Sequence Number:	14918
Operator:	DCLTD231\Operator		
Assay Start:	1/28/2013 1:36:51 PM		
Description 1:	2LANDA1086		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 64.1 kg	Net:	64.1 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.320 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:	14918	Batch Number:	2LANDA1086
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92484	Analysis Date:	1/28/2013

Net Weight	64100.0 g		
Pu mass	2.35E+000	+-	3.44E-001 g
TRU Alpha Activity	1.18E+000	+-	1.25E-001 Ci
TRU Activity Concentration	1.85E+004	+-	1.96E+003 nCi/g
Pu-239 Equivalent Activity	1.19E+000	+-	1.25E-001 Ci
Pu-239 FGE	2.22E+000	+-	3.43E-001 g
Decay heat	3.91E-002	+-	4.18E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.93E-009	2.67E-007	1.62E-007	0.00E+000
CS137	3.04E-009	2.67E-007	1.62E-007	1.77E-007
U233	<LLD	<LLD	0.00E+000	1.74E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.24E-007
NP237	2.42E-002	1.73E-005	2.09E-006	9.21E-007
PU238	2.16E-004	3.73E-003	7.85E-004	1.94E-004
U238	<LLD	<LLD	0.00E+000	5.41E-006
PU239	2.20E+000	1.39E-001	2.16E-002	7.19E-003
PU240	1.41E-001	3.24E-002	6.81E-003	1.68E-003
AM241	2.90E-001	1.01E+000	1.23E-001	1.56E-002
PU241	2.80E-003	2.91E-001	6.11E-002	1.51E-002
PU242	4.70E-004	1.86E-006	3.92E-007	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1/31/13

ITR: _____ Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 14918 Batch Number: 2LANDA1086
Counter ID: HENC #2
Container ID: 92484
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/28/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
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 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: Sherie Chandler Date: 1-30-13

Waste Container ID: **92484**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130201c\
Data File : 92484.D
Acq On : 1 Feb 2013 11:21 am (#1); 01-Feb-13, 11:20:42 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 11:29:24 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	3.610	96	4748253	201.25 ppmv	0.04
15) Chlorobenzene-d5	5.930	117	4321557	177.00 ppmv	0.03

Target Compounds	Qvalue

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

UET Copy
Working
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90723

6.2[4] Date Processed: 12/18/12

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

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

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

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

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

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

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

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

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

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

Performed By: Michael Romero / [signature] 182723 / 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90723

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 362.2 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 362.2 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:

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90723

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92488			
10.1[4]	Daughter Drum Filter No.	AM-1015		N	
10.1[4]	Daughter Drum Bag Filter No.	L-4384		A	
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP			
	Model No.	6CPVC1.5-25DC			
	Serial No.	L-4407			
	Date of Manufacture	7-12			
10.2[5]	POC ID No	92489			
10.2[7][B]/10.2[6]	POC Item Description	Salts Kitty litter			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	MR Z62723			
10.2[14]	POC Assembly Gross Weight (lb)	372.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	800.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A		N/A	
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90723

Comments: Salts, plastic, metal poc lid, bolts, cardboard

11.1[1] Performed By: Michael Romero [signature] 182723 / 12-18-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Mtz [signature] 149035 / 1-7-13 0840
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-11-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

5.[8] Overpack filtered vent information:

Manufacturer: NucFil
Model No.: 013
Serial No.: IL-229
Manufacture Date: 9-11

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

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

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

Performed By: Brian Gallegos / Bri Gallegos / 247129 / 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / Bri Gallegos / / 12-11-12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 149235 / 12-13-12
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92490

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

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

Performed By: Michael Romero [signature] 182723 / 12/18/12
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 323.2 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 / 12/18/12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert A Martinez [signature] 149225 / 1.3.12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92488

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 416265
Lot #: 022922-5
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 #: 66PVC 1.5-28RVC
Serial #: L-4384
Date of Manufacture: 7/12

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 #: 01905
Serial #: AM-1615
Date of Manufacture: 1/12

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 #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-80
Tolerance: +/-8% cw and +/-6% ccw

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

☑ Yes ☐ No

Print Name: Steven Mondragon Signature: Steven Mondragon Z#: 104741

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 77.0
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: Steven Mondragon Operator Sign: Steven Mondragon Z#: 104741 Date: 12-11-12

Verifier Print: Michael Romero Verifier Sign: Michael Romero Z#: 182723 Date: 12-18-12

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

DRUM ID#: 92488

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 021151

Cal expiration date: 6-11-13

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

Tolerance ±3% ow ±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): 164.8

Scale ID#: 015065

✓ 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. Dally Date 12.18.12

Verifier Print/Sign: Michael Pence Date: 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

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Production Control

Container ID: 90723 Container Type: POC Gross Weight (lbs): 358

Container Seal #: None Filter Prefix: None Filter Serial #: EL-544; EL-592

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-724

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 10/19/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 calcs mixed with Waste Lock 770® from previous repack campaign. A minimum of 1.2 volume 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: 9/4/12

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 – POC

Net Wt: 48 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 + <1,000 mrem/hr

RTR BDR inventory shows homogeneous material + plastic bag/horizontal

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112109 Date: 10/3/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands; 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: 224452 Date: 10-15-12

LL Z# 249750 10/19/12

IHS REVIEW: RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/23/2012
Waste Container ID:	90723
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 162.5 kg. Tare Wt: 145.1 kg. Net Wt: 17.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90723

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag, horsetail Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	0.2
Organic Matrix (OR):	
Inorganic Matrix (IN):	17.2
Soils (S):	
Total WMP Weight:	17.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90723

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 1.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
RH or RH TRUPACT		
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:

Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/23/12

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])	90723					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PQ					
Filtered Vent Type (5.[1])	14 DS					
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])	157.5 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) — 237975 — Z #

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

Comments: Per attached email, container has ~~been~~ been verified as 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: SUSAN RAMSEY — Waste Handling Operator (print) — Signature — 100681 — Z # — 10/10/12 — Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90723.D
Acq On : 5 Oct 2012 3:00 pm (#1); 5 Oct 2012 2:59 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM THROUGH 19DS-UNOBSTRUCTED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 15:08:13 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	2314920	206.00 ppm	0.0(
15)	Chlorobenzene-d5	5.936	117	2072070	179.50 ppm	0.0(
	Target Compounds					Qvalue
1)	Hydrogen	5.304	GC1	38918m	157.51 ppm	

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

Vocgas.m Fri Oct 05 15:08:20 2012

03
2-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Cleland
0001 Starting inside and outside rounds
0017 Item #1 is OOS, per CSE documentation OK to proceed.
0021 completed inside rounds
0026 Completed outside rounds.
0705 RCT received sum of ~~0000~~ 2-18-12 0000 contamination on catch pan 50dpm alpha, RCTs will direct resurvey
0710 SOS has been notified.
0759 late entry 1155 inside and outside rounds signed off by SOS (W)
0815 mode change performed TASD-69 and WCRRF yard now in operations. starting movement out of 50-69.
0825 completed movement out of 9. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transpor vehicle. permission granted to lower vehicle access barrier.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle
0906 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift. SOS has been notified and operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69
1009 Completed movement out of 50-69
1010 OK to continue operations, per CSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~turnover~~ 2-18-12 turnover with Terri Coleman - Cleland
1051 Assuming WCRR operations center - JColeman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - JColeman

SIGNATURE _____ DATE _____

304

PROJECT NAME _____ NOTEBOOK NO. _____

1248-12	continued from previous page
1155	PPE check SAT.
1159	Bagging off 90719 by 1C 12-18-12 and 1 POC bagging on 90
1207	Shift turnover with CCO Clarissa Ulbride, Coleman
1208	resuming WCRREF operations water - Ulbride
1210	Starting movement into SD-69
1235	Bag on / bag off complete.
1343	Starting movement out of SD-69, PPE check is Sat
1400	Completed movement out of SD-69
1409	bagging on 90728, bagging off 90722
1413	PPE check is sat.
1440	bagging off 90728, bagging on 90723
1445	Starting outside rounds
1450	Bag on / bag off complete. PPE check is sat.
1500	Item 1c is 205 per CSE OK to proceed.
1506	Inside rounds complete.
1509	outside rounds complete.
1551	bagging off 90723 and POC. PPE check is sat
1605	bag off is complete
1615	mode change performed TRSD-69 and WCRREF yard now in warm ~~standby~~ standby.
12-18-12 1643	end of day WCRREF operations secure - Ulbride

pw

Calculations this page

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0605 Conducted shift brief discussed staying focused and that pics cannot word on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed At 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position [illegible]

0815 Mode Change Complete in Operations Mode in WCRR Yard and SD-69.

69 0830 Late Entry (JJ) At 0705 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by SOM that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call out for further instruction.

1015 Resuming Operations. Pictures taken of the spring. Operators are unable to identify where it may have come from. ~~Per CE~~ Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning over SOS duties to Gilbert Martinez. [illegible]

1101 Assuming Position [illegible]

1108 Bags at Bagging on 90719 RE Check

1155 PPE Check

1159 Bagging off and Bagging on 90722

Continued from next Page

1406 bagging off and bagging on 90728
1413 RPG Check
1440 bagging on and bagging off G10723
1530 Reviewed Inside and outside Counds.
1605 Bagged off final drum of day
1615 12/18/07 Mark change complete INCERF En warm
12.18.07 1630 End of shift securing SOS Position
LMG

No further entries on this Page

PROJECT NAME 12/18/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position. L.C.

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Bagging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F

0832 Released expedited W.O # 427964-01 to paint stairs on east end of Bldg 50-84.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.

1100 Notified that OSPRT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on line.

1400 Went to TA-44 to sign off/review Jan 13 work packages.

1530 Completed procedure validation for Monthly FSS Valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

22

PROJECT NAME 12/18/12 NOTEBOOK NC

1615 Completed mode change! WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1630 Secures SOM position

No Further Entries this Page

SIGNATURE

DATE 12/18

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0008
Examination Date:	1/18/2013
Waste Container ID:	92488
Video/Audio Recorded Media Number:	LA-RTR2-13-0008 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 75.0 kg Tare Wt.: 33.4 kg Net Wt.: 41.6 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: 92488

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Nucfil-19DS filter, pipe component lid, metal hardware

AM:

OM:

OI:

C: Fiberboard liner sleeve (POC), cloth, fiberboard packaging material (POC)

R:

XPM: 90 mil plastic liner lid, plastic bags

OR:

IN: Absorbent

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (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):	15.1
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	0.5
Soils (S):	
Total WMP Weight:	41.6

CCP Radiography Data Sheet

Waste Container ID: 92488

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		1/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92488	Count Sequence Number:	21982
Operator:	D3PW2DK1\operator		
Assay Start:	2/4/2013 3:48:05 PM		
Description 1:	1LANDA1707		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 41.6 kg	Net:	41.6 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.220 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	21982	Batch Number:	1LANDA1707
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92488	Analysis Date:	2/4/2013

Net Weight	41600.0 g		
Pu mass	1.70E+000	+-	2.96E-001 g
TRU Alpha Activity	4.14E-001	+-	3.94E-002 Ci
TRU Activity Concentration	9.94E+003	+-	9.48E+002 nCi/g
Pu-239 Equivalent Activity	4.17E-001	+-	3.94E-002 Ci
Pu-239 FGE	1.60E+000	+-	2.77E-001 g
Decay heat	1.35E-002	+-	1.30E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.59E-003	5.42E-006	5.77E-007	4.85E-007
PU238	1.56E-004	2.70E-003	4.70E-004	3.66E-005
PU239	1.60E+000	1.00E-001	1.74E-002	1.36E-003
PU240	1.02E-001	2.35E-002	4.08E-003	3.17E-004
AM241	8.27E-002	2.87E-001	3.51E-002	9.51E-003
PU241	2.02E-003	2.10E-001	3.66E-002	2.85E-003
PU242	3.41E-004	1.35E-006	2.35E-007	0.00E+000
CO60	3.84E-011	4.38E-008	1.38E-008	4.04E-008
SR90	2.66E-009	3.67E-007	1.12E-007	0.00E+000
CS137	4.19E-009	3.67E-007	1.12E-007	1.47E-007
U233	<LLD	<LLD	0.00E+000	9.16E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.52E-007
U238	<LLD	<LLD	0.00E+000	3.59E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 2-5-13

ITR: [signature] Date: 2-6-13

Automated Independent Technical Review

Count Sequence Number: 21982 Batch Number: 1LANDA1707
Counter ID: MCS HENC #1
Container ID: 92488
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 2/4/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
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 Chambers Date: 2-5-13

Attachment 4 – Flammable Gas Analysis Form

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

5824551

Waste Container ID: **92488**

BDR Number: **LA13FG8009**

Sampling Date: **2/6/2013**

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\130206C\
Data File : 92488.D
Acq On : 6 Feb 2013 2:56 pm (#1); 6 Feb 2013 2:55 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 15:05:26 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	3.259	96	2609850	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2355002	179.50 ppm	0.00

Target Compounds Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92489
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.: 171.5 kg Tare Wt.: 145.1 kg Net Wt.: 26.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92489

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid Liner Bag (Inside POC)	8.1
Other:Fiberboard (CP), Liner/Sleeve(Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.4
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	26.0
Soils (S):	
Total WMP Weight:	26.4

CCP Radiography Data Sheet

Waste Container ID: 92489

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:

Benito Maestas		1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92489	Count Sequence Number:	21850
Operator:	D3PW2DK1\operator		
Assay Start:	1/16/2013 10:34:36 AM		
Description 1:	1LANDA1697		
Description 2:	POC - GROSS WT. = 171.5 KG		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 26.4 kg	Net:	26.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.728 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: 21850
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92489

Batch Number: 1LANDA1697
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/16/2013

Net Weight	26400.0 g		
Pu mass	5.66E+001	+-	1.74E+001 g
TRU Alpha Activity	1.75E+001	+-	4.02E+000 Ci
TRU Activity Concentration	6.65E+005	+-	1.52E+005 nCi/g
Pu-239 Equivalent Activity	1.78E+001	+-	4.02E+000 Ci
Pu-239 FGE	5.32E+001	+-	1.63E+001 g
Decay heat	5.77E-001	+-	1.34E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.77E-002	4.84E-005	9.20E-006	2.90E-006
PU238	4.84E-002	8.37E-001	2.58E-001	2.75E-004
PU239	5.28E+001	3.32E+000	1.02E+000	1.09E-003
PU240	3.54E+000	8.13E-001	2.51E-001	2.68E-004
AM241	3.62E+000	1.26E+001	3.87E+000	4.14E-003
PU241	1.42E-001	1.47E+001	4.54E+000	4.85E-003
PU242	1.47E-001	5.84E-004	1.80E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.50E-007
U233	<LLD	<LLD	0.00E+000	5.70E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.70E-006
U238	<LLD	<LLD	0.00E+000	1.38E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-2013

ITR: _____ Date: 1.24.13

Automated Independent Technical Review

Count Sequence Number: 21850
Batch Number: 1LANDA1697
Counter ID: MCS HENC #1
Container ID: 92489
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.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed:	MGA valid.
Uncertainty in Pu240 effective (28.0%) is greater than allowed (20.0%).	After EA review, uncertainty value acceptable.
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: 1-17-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92489**

BDR Number: **LA13FG2080**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1346.69	
74-82-8	Methane	142.14	U
67-56-1	Methanol	96.10	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	36.13	
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	4.85	
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	9.11	
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130710C\
Data File : 92489.D
Acq On : 10 Jul 2013 1:21 pm (#1); 10-Jul-13, 13:20:50 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 13:29:22 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	3.525	96	4288738	205.75	ppmv	0.00
15) Chlorobenzene-d5	5.865	117	3490921	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.614	GC1	10126	1346.69	ppmv	100
4) Methanol	0.841	31	32933	96.10	ppmv	100
7) Acetone	1.369	58	45964	36.13	ppmv	82
12) Benzene	3.203	78	73469	4.85	ppmv	96
17) Toluene	4.830	92	113878	9.11	ppmv	94

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

Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90724

6.2[4] Date Processed: 12-19-12

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 07-31-13

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: Kevin Belusca / Kevin Belusca / 123514 / 12-19-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90724	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	377.0	lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	N/A	lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	377.0	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.: 907224

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92494		N	
10.1[4]	Daughter Drum Filter No.	Am-1003		A	
10.1[4]	Daughter Drum Bag Filter No.	L4332			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP		
	Model No.	BCPOC 1.5-2.5PE	BCPOC 1.5-2.5 POC		
	Serial No.	L4403	L4343		
	Date of Manufacture	7/12	7/12		
10.2[5]	POC ID No 12-14-12	~~364.6~~	~~368.4~~ 92496		
10.2[7][B]/10.2[6]	POC Item Description	Salt 92495 plastic Kitty litter	Salt 92496 plastic Kitty litter	N	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	CM 240092	CM 240092		A
10.2[14]	POC Assembly Gross Weight (lb)	364.6	368.4		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1100.5	1200.5		
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	N	A		
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments		N	
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100 %			A
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic stab-out			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90724

Comments: salts, cardboard liner, plastic

11.1[1] Performed By: Kevin Bebsack / Kevin Bebsack / 123189 / 12-19-12 cm 12/19/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez / [signature] / 149235 / 1-3-12 0830
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.: 413724
Lot No.: 210114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL - 236
Manufacture Date: 9-11

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

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

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

Performed By: BRIAN GALLEGOS / [signature] / / 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] 267129 12-11-12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] 149235 / 3/13
Supervisor or designee (print) Signature Z # Date

UEF Working Copy
Date: 12-19-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92497

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

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

Performed By: Kevin Bekscak / Kevin Bekscak 123198 / 12-19-12
Waste Handling Technician (print) Signature Z # Date

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

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

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 07-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 324.8 lb

Comments:

8.1[1] Performed By: Kevin Bekscak / Kevin Bekscak 123198 / 12-19-12 12/19/
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] 149335 1-3-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92494

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 #: 0222224
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPVC 1.5 2 SPVC
Serial #: L4382
Date of Manufacture: 7/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUC Fil
Model #: 019DS
Serial #: AM-1003
Date of Manufacture: 1-12

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 #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-80
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: Steven Mondragon Signature: Steven Mondragon Z#: 104741

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 77.2
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: Steven Mondragon Operator Sign: Steven Mondragon Z#: 104741 Date: 12-11-12

Verifier Print: Kaia Belusak Verifier Sign: Kaia Belusak Z#: 239199 Date: 12-19-12 CM 12/19/12

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

DRUM ID#: 92494

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 021151

Cal expiration date: 06-11-13

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

— Tolerance +/- 3% CW and +/- 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): 162.0

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 12-19-12

Verifier Print/Sign: [illegible] Date: 12/19/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

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Production Control

Container ID: 90724 Container Type: POC Gross Weight (lbs): 372

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-264; EL-62

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-779

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 volume of Kitty Litter Pre-dite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Signature: Susan S. Ramsey / Z Number: 100681 / Date: 9/14/12

Production Control (Print)

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: 62 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.

RTR BDR inventory shows homogeneous material + plastic bag.

Performed By: Valerie Rhodes / Signature: Valerie Rhodes / Z Number: 112607 / Date: 10/3/12

WDP Engineering (Print)

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevarmour gloves when processing waste. Do not push or press on waste with hands.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Sereez / Signature: Jose Sereez / Z Number: 221452 / Date: 10-15-12

TRU Remediation Operations (Print)

Z# 249750 10/19/12

HS Review RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90724
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 169.0 kg. Tare Wt: 145.1 kg. Net Wt: 23.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90724

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	0.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	23.8
Soils (S):	
Total WMP Weight:	23.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 3 of 3

Waste Container ID: 90724

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 1.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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))?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
CR 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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard	[signature]	1/20/12

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])	90774					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PUC					
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])	133.16 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)) 237975 (Z #)

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

Comments: Per attached email, container has been vented in PDC

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

- 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 #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90724.D
Acq On : 5 Oct 2012 2:38 pm (#1); 5 Oct 2012 2:37 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM THROUGH 19DS-UNOBSTRUCTED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 14:46:14 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	3.262	96	2350178	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2114857	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.304	GC1	32901m	133.16 ppm	

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

Vocgas.m Fri Oct 05 14:46:21 2012

05
19-12 PROJECT NAME _____ NOTEBOOK NO. _____

0530 Assuming WCRR operations center. - JColeman
0540 Beginning inside and outside rounds.
0568 JHem H to POOS. POD in place. OIC to proceed.
0600 Inside rounds complete.
0606 Outside rounds complete.
0615 Pre job being conducted by SOS.
0630 Pre-job concluded.
0648 Both rounds reviewed by SOS.
0722 Mode change completed. We are now in operations.
0800 Bagging on Drum #90725. PPE Check Sat.
0810 Bag on complete.
0835 PPE check Sat.
0856 Shift turnover with OCD Clarissa Delaude - JColeman
0856 Assuming WCRRF Operations center - Delaude
0859 Starting movement out of 50-69
0911 bagging off 90725, bagging on 90724 PPE Check is Sat
0913 ~~Starting~~ Completed movement out of 50-69
0921 Completed movement into 50-69
0930 bag on, ~~bag~~ bag off complete.
1014 Talk notifying operations center that WCRRF yard is starting to dry up and get slippery.
1022 ~~bagging off 90724 and 2 PCCs~~, bagging on 90047 and will be bagging off 90724 and 2 PCCs, PPE check is SAT
1114 bag on is complete. PPE check is SAT.
1330 notified by SOM that an individual may have received a classified e-mail. SOM has notified computer security
1335 Computer security arrived.
1351 bagging off 90047 and PCC, bagging on 87121. PPE check is Sat.
1424 bag on, bag off is complete. PPE check is sat
1504 Outside rounds being started.
1540 Completed outside rounds
1511 Team lead is SOS per CE accumulation OK to proceed.
1518 Completed inside rounds
1521 Starting movement out of 50-69.
1534 movement out of 50-69 complete
1551 bagging off 87121
1559 Inside and outside rounds signed off by SOS
1606 bag off is complete.
1618 TA 50-69 and WCRRF mode change complete now in warm standby
1637 End of day WCRRF Operations center - Delaude.

No further entries this page

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

12-19-12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief Discussed weather conditions cold weather and bagging.

0640 Concluded shift brief

0648 Reviewed Inside and outside Rounds

0800 Bagging on First drum of day 90725 PPE check

0835 PPE Check Late entry Mode change Complete WCRRF In Operations

0911 bagging off and bagging on 90724 PPE Check OK

1022 bagging off and bagging on 9047 PPE check

1351 bagging off and bagging on 57121 PPE check

1537 bagging off Final drum

1539 Reviewed Inside And outside Rounds

1618 Mode Change Complete WCRRF in warm mode

19-12 1630 end of shift securing SOS Position [illegible]

1119

No further entries on this page

PROJECT NAME 12/19/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position

0615 Attended pre job meeting conducted by SOS. Discussed weather and its impacts on today's operations - currently snowing and expected to for most of day w/ dropping temps.

0700 Called into daily brief conducted by TA-54 SOM. Updated WCRR status to include rollover of yesterdays receipt from TA-54 and cancel the outgoing shipment.

0722 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0725 Notified by OSPAT they are delaying TRU shipment to WCRR due to weather.

0740 Released WO # 448179-01 50-54 Crane Repairs in Machine Shop - Final Inspections are to be completed prior to turnover back to FOD 5.

0800 Begging On first drum.

0900 Verified w/ OM and deputy FOD that the only crane/lifting device identified to be controlled w/ administrative locks is the A-frame/Gantry crane w/ electric Hoist CTG-004/HE-004 located outside Bldg 50-54. Crane is identified as Out of Service due to no legible inspection tag on A-Frame. Deputy FOD requested a red LO/TO be installed to comply w/ FOD instructions.

0945 SOS installed red LO/TO on HE-004 plug. Per P-103 policy simple LO/TO was applied w/ no IV required. Verified w/ Division LO/TO procedure which stated does not apply to plug control LO/TO.

1003 Notified by OSPAT that todays shipment is cancelled due to road conditions.

1200 Daily call in w/ Project Manager to status WCRR operations.

1315 Notified by RP-1 supervisor one of his technicians received a questionable e-mail, possible security violation, contacted OCSR/Security.

1335 Computer Security Representative on site, Reviewed EP-WCRR-RM-EOP-0304 Notified OM.

1458 After reviewing computer attachment w/ SIT, Computer Security determined no issue on questionable e-mail. For future emails from unknown senders w/ attachments computer security recommends deleting such e-mails prior to opening.

1618 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1630 Secured SOM position.

No further entries this page

SIGNATURE DATE 12/19 20 12

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0012
Examination Date:	1/25/2013
Waste Container ID:	92494
Video/Audio Recorded Media Number:	LA-RTR2-13-0012 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 73.5 kg Tare Wt.: 33.4 kg Net Wt.: 40.1 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: 92494

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal hardware, pipe component lid
AM:	
OM:	
OI:	
C:	Fiberboard liner sleeve, fiberboard
R:	
XPM:	90 mil plastic liner lid, plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	18.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	16.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	2.1
Soils (S):	
Total WMP Weight:	40.1

CCP Radiography Data Sheet

Waste Container ID: 92494

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		1/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92494	Count Sequence Number:	21926
Operator:	D3PW2DK1\operator		
Assay Start:	1/29/2013 9:17:20 AM		
Description 1:	1LANDA1703		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 40.1 kg	Net:	40.1 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.210 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:	21926	Batch Number:	1LANDA1703
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92494	Analysis Date:	1/29/2013

Net Weight	40100.0 g		
Pu mass	2.08E-001	+-	2.34E-002 g
TRU Alpha Activity	1.87E-001	+-	2.33E-002 Ci
TRU Activity Concentration	4.67E+003	+-	5.81E+002 nCi/g
Pu-239 Equivalent Activity	1.88E-001	+-	2.33E-002 Ci
Pu-239 FGE	1.97E-001	+-	2.32E-002 g
Decay heat	6.22E-003	+-	7.78E-004 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	2.53E-009	3.50E-007	9.04E-008	0.00E+000
CS137	3.99E-009	3.50E-007	9.04E-008	1.14E-007
U233	<LLD	<LLD	0.00E+000	6.41E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.78E-007
NP237	4.32E-003	3.09E-006	3.31E-007	3.44E-007
PU238	1.91E-005	3.31E-004	5.78E-005	9.99E-005
U238	<LLD	<LLD	0.00E+000	3.42E-006
PU239	1.95E-001	1.23E-002	1.46E-003	3.71E-003
PU240	1.25E-002	2.87E-003	5.30E-004	8.67E-004
AM241	4.95E-002	1.72E-001	2.32E-002	6.55E-003
PU241	2.48E-004	2.57E-002	4.76E-003	7.78E-003
PU242	4.16E-005	1.65E-007	3.05E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 2/1/13

ITR: [illegible] Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 21926 Batch Number: 1LANDA1703
Counter ID: MCS HENC #1
Container ID: 92494
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/29/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; 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: Sherri Chambers Date: 1-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92494**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1043.56	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130201c\
Data File : 92494.D
Acq On : 1 Feb 2013 10:45 am (#1); 01-Feb-13, 10:44:58 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 10:55:51 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.532	96	5171313	201.25 ppmv	-0.04
15) Chlorobenzene-d5	5.871	117	4510792	177.00 ppmv	-0.03
Target Compounds					Qvalue
1) Hydrogen	1.550	GC1	7417m	1043.56 ppmv	

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

30

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0003
Examination Date:	1/9/2013
Waste Container ID:	92495
Video/Audio Recorded Media Number:	LA-RTR2-13-0003 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 165.0 kg Tare Wt.: 145.1 kg Net Wt.: 19.9 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 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92495

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner w/ Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	18.4
Soils (S):	
Total WMP Weight:	19.9

CCP Radiography Data Sheet

Waste Container ID: 92495

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		1/9/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92495	Count Sequence Number:	14845
Operator:	DCLTD231\Operator		
Assay Start:	1/16/2013 2:19:37 PM		
Description 1:	2LANDA1079		
Description 2:	POC- 165.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 19.9 kg	Net:	19.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.695 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:	14845	Batch Number:	2LANDA1079
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92495	Analysis Date:	1/16/2013

Net Weight	19900.0 g		
Pu mass	5.97E+000	+-	1.68E+000 g
TRU Alpha Activity	3.50E+000	+-	1.66E+000 Ci
TRU Activity Concentration	1.76E+005	+-	8.34E+004 nCi/g
Pu-239 Equivalent Activity	3.51E+000	+-	1.66E+000 Ci
Pu-239 FGE	5.64E+000	+-	1.57E+000 g
Decay heat	1.16E-001	+-	5.54E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.00E-002	2.86E-005	5.29E-006	2.18E-006
PU238	5.49E-004	9.49E-003	2.67E-003	3.61E-005
PU239	5.60E+000	3.52E-001	9.89E-002	1.34E-003
PU240	3.58E-001	8.23E-002	2.31E-002	3.13E-004
AM241	8.79E-001	3.05E+000	1.66E+000	3.47E-002
PU241	7.12E-003	7.40E-001	2.08E-001	2.81E-003
PU242	1.19E-003	4.74E-006	1.33E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.64E-007
U233	<LLD	<LLD	0.00E+000	3.90E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.29E-006
U238	<LLD	<LLD	0.00E+000	1.01E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-13

ITR: _____ Date: 1-28-13

Automated Independent Technical Review

Count Sequence Number: 14845 Batch Number: 2LANDA1079
Counter ID: HENC #2
Container ID: 92495
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/16/2013

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 Chamber Date: 1-17-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92495**

BDR Number: **LA13FG2076**

Sampling Date: **7/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	276.36	
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	9.13	
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\130701c\
Data File : 92495.D
Acq On : 1 Jul 2013 2:55 pm (#1); 01-Jul-13, 14:54:54 (#2)
Operator : GR
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 01 15:04:39 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	3.591	96	4131033	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.920	117	3380389	177.50 ppmv	0.06
Target Compounds					Qvalue
1) Hydrogen	1.611	GC1	2078m	276.36 ppmv	
17) Toluene	4.883	92	110482	9.13 ppmv	97

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

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0007
Examination Date:	1/17/2013
Waste Container ID:	92496
Video/Audio Recorded Media Number:	LA-RTR2-13-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 167.0 kg Tare Wt.: 145.1 kg Net Wt.: 21.9 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 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92496

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bag

OR: ~~Homogeneous solids~~ EL 1/21/13

IN: Homogeneous solids EL 1/21/13

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):	0.5
Organic Matrix (OR):	~~21.4~~ EL 1/21/13
Inorganic Matrix (IN):	21.4 EL 1/21/13
Soils (S):	
Total WMP Weight:	21.9

CCP Radiography Data Sheet

Waste Container ID: 92496

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:

Eric Lyles / Michael Simmons		1/17/2013
Print Name Eric Lyles / Michael Simmons	Signature	Date 1/21/13 1/21/13

RTR Data Sheet.xls SCO# 1189 Ver. 1
Microsoft Excel 2003 Windows XP

NDA 2000 Assay Report

Item Information

Item ID:	92496	Count Sequence Number:	21880
Operator:	D3PW2DK1\operator		
Assay Start:	1/18/2013 4:09:38 PM		
Description 1:	1LANDA1699		
Description 2:	POC, 167.0		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 21.9 kg	Net:	21.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.705 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: 21880
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92496

Batch Number: 1LANDA1699
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/18/2013

Net Weight	21900.0 g	
Pu mass	5.15E+000 +-	1.32E+000 g
TRU Alpha Activity	3.21E+000 +-	5.35E-001 Ci
TRU Activity Concentration	1.46E+005 +-	2.44E+004 nCi/g
Pu-239 Equivalent Activity	3.22E+000 +-	5.35E-001 Ci
Pu-239 FGE	4.87E+000 +-	1.24E+000 g
Decay heat	1.06E-001 +-	1.79E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.37E-002	3.12E-005	5.88E-006	3.46E-006
PU238	4.74E-004	8.20E-003	2.10E-003	3.47E-005
PU239	4.84E+000	3.04E-001	7.79E-002	1.29E-003
PU240	3.09E-001	7.11E-002	1.82E-002	3.00E-004
AM241	8.13E-001	2.82E+000	5.29E-001	4.14E-002
PU241	6.14E-003	6.39E-001	1.64E-001	2.70E-003
PU242	1.03E-003	4.09E-006	1.05E-006	0.00E+000
SR90	7.60E-009	1.05E-006	5.74E-007	0.00E+000
CS137	1.20E-008	1.05E-006	5.74E-007	5.03E-007
U233	<LLD	<LLD	0.00E+000	3.86E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.16E-006
U238	<LLD	<LLD	0.00E+000	1.03E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1-29-13

ITR: [signature] Date: 1/29/13

Automated Independent Technical Review

Count Sequence Number: 21880 Batch Number: 1LANDA1699
Counter ID: MCS HENC #1
Container ID: 92496
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/18/2013

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: 1-22-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92496**

BDR Number: **LA13FG2076**

Sampling Date: **7/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	220.24	
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\130701c\
Data File : 92496.D
Acq On : 1 Jul 2013 3:08 pm (#1); 01-Jul-13, 15:07:27 (#2)
Operator : GR
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 01 15:17:49 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	3.542	96	3959709	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.881	117	3188842	177.50 ppmv	0.02
Target Compounds					Qvalue
1) Hydrogen	1.607	GC1	1656m	220.24 ppmv	

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

Working Copy
Date: 12-19-12 JC

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90725

6.2[4] Date Processed: 12-19-12

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.: 019065
Cal. Due Date: 07-31-13

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: Kevin Bylescak / Kevin Bylescak 123199 / 12-19-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90725

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 392.6 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 392.6 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:

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90725

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92492		N	
10.1[4]	Daughter Drum Filter No.	Am-1010			A
10.1[4]	Daughter Drum Bag Filter No.	L-4383			
10.1[4]	Daughter Drum Purchase Order No.	4116184			
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)				
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[8]	Daughter Drum % Full (%)	100%		A	
10.5[3]/10.6[2]	Description Waste Added During Processing	Stab outs Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90726

Comments: Cardboard liner, salts, Hex armor gloves, plastic

11.1[1] Performed By: Kevin Bolycak / Kevin Bolycak / 123649 / 10-11-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martz / [signature] / 149335 / 1-3-13 0835
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-11-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 413724
Lot No.: 210114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:
Manufacturer: NUCFIL
Model No.: 013
Serial No.: 1L-242
Manufacture Date: 9/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-24-13	6-11-13
Tolerance:	±4% cw ± 6% ccw	±3% cw ± 6% ccw

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

Performed By: BRIAN GALLEGOS / [signature] 267129 12-11-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] 267129 12-11-12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] 142351 1-3-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 12-19-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92493

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

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

Performed By: Kevin Belusak / Kevin Belusak / [illegible] / 12-14-12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: ~~16~~ 60 ~~80~~ 60 12-14-12 ft-lb

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

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 07-31-13

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

Comments: N/C

8.1[1] Performed By: Kevin Belusak / Kevin Belusak / [illegible] / 12-14-12 CT 12/14/12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 149051 / 1-3-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92492

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 #: 4116184
- 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 #: 6CPVC 1.5-2 STVC
- Serial #: L-4333
- Date of Manufacture: 7-12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:
- Manufacturer: NUC Fil
- Model #: D19DS
- Serial #: AM-1010
- Date of Manufacture: 1/12

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 #: 021151
- Cal Expiration Date: 6-11-13
- Range (ft-lbs or in-lbs): 16-80
- 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: Steven Mondragon Signature: Steven Mondragon ZI#: 104741

5. Weigh Drum Assembly

RECORD weight information
- Tare wtght (lbs) 77.0
- 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: Steven Mondragon Operator Sign: Steven Mondragon ZI#: 104741 Date: 12-11-12

Verifier Print: Kevin Belusak Verifier Sign: Kevin Belusak ZI#: 238199 Date: 12-19-12

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

DRUM ID#: 92492

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 021151

Cal expiration date: 06/11/13

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

— Tolerance +/- 3% cw and +/- 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): 270.8

Scale ID#: 014065

✓ 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: Kevin Bell 12/19/17 Date 12-19-17

Verifier Print/Sign: Brandon Chavez Date: 12-19-17

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

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Production Control

Container ID: 90725 Container Type: POC Gross Weight (lbs): 388

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-269; EL-58

RTK Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-794

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 6

EPA Code(s): D008 D007 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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. Any mixture of 1.2 volume of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Production Control (Print) Signature: Susan S. Ramsey Z Number: 100681 Date: 9/4/12

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 – POC

Net Wt: 78 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 ~~chromium, lead,~~ and mercury. No chemicals present. May require RWP for >100 + <1000 mrem/hr

RTR BDR inventory shows homogeneous material, plastic bag, + broken glass

Performed By: Valerie Rhodes / WDP Engineering (Print) Signature: Valerie Rhodes Z Number: 112601 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 kevlar 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 * Sharps - Broken Glass *

IHS Review: RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90725
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-0283-12 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: 176.5 kg. Tare Wt: 145.1 kg. Net Wt: 31.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90725

Section 3: Container Inventory and Comments (Detailed descriptions)
Broken glass
Plastic bag
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), 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):	3.0
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.3
Organic Matrix (OR):	
Inorganic Matrix (IN):	28.1
Soils (S):	
Total WMP Weight:	31.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90725

Section 3: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 1.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Standard Pipe Overpack Container (P.O.C.)

Comments:

NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard	[signature]	1/26/12

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])	90725					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PCC					
Filtered Vent Type (5.[1])	19 DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: Per attached email, container has been verified as PCC

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 #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90725.D
Acq On : 5 Oct 2012 1:28 pm (#1); 05-Oct-12, 13:27:57 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 13:36:13 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	3.561	96	6268624	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.884	117	5505989	177.00	ppmv	0.00

Target Compounds Qvalue

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

19-12
0530 Assuming WCRR operations center - [illegible]
0540 Beginning inside and outside rounds.
0558 [illegible] POD in place. OK to proceed.
0600 Inside rounds complete.
0606 Outside rounds complete.
0610 Pre job being conducted by SES.
0630 Pre-KD completed.
0648 Both rounds reviewed by SES.
0722 Mode change completed. We are now in operations.
0800 Bagging on drum # 90725. PPE check set.
0810 Bagging complete.
0835 PPE check set.
0856 Shift turnover with OCO Clarissa Delaude - [illegible]
0857 Assuming WCRRF operations center [illegible]
0859 Starting movement into 57-69
0911 Bagging off 90725, bagging on 90724, PPE check is set
0913 ~~Starting~~ Bagging completed movement out of 57-69
0921 Completed movement into 90-60
0930 Begin, ~~bag~~ Bagging off complete.
1004 Talk to [illegible] operating center that WCRRF [illegible] is starting to facility and out [illegible]
1020 ~~Bagging off 90724 and 2 parts~~, bagging on 90727 and will be bagging off 90724 and 2 parts, PPE check is SAT
1114 Bagging is complete, PPE check is SAT.
1330 Notified by SEM that an individual may have had [illegible] a [illegible] e-mail. SEM has [illegible] computer [illegible]
1355 Computer currently [illegible]
1357 Bagging off 90727 and [illegible], bagging on 87121, PPE check is sat.
1414 [illegible], bag off is complete. PPE check is sat
1504 Outside rounds being started
1506 Completed outside rounds
1511 Return [illegible] PPE recommendation OK to proceed
1518 Completed inside rounds
1521 Starting movement out of 57-69
1536 Movement out of 57-69 complete
1537 Bagging off 87121
1538 Inside and outside rounds signed off by SES
1600 Bag off is complete.
1618 TRF 69 and WCRRF mode change complete and in warm standby
1637 End of day WCRRF operations center [illegible] - [illegible]

No further entries this page

12.19.16 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief Discussed weather conditions cold weather and badging

0640 Concluded shift brief

0648 Reviewed Inside and outside Rounds

0800 Bagging on Final drum at day 96725 PIE check

0835 PIE Check Late entry Mode change Complete WCRRF In Operations

0911 bagging off and bagging on 15724 PIE check OK

1022 bagging off and bagging on 9647 PIE check

1351 bagging off and bagging on 57121 PIE check

1537 bagging off Final drum

1539 Reviewed Inside and outside Rounds

1618 Mode change Complete WCRRF in warm mode

9.12.16 30 end of shift securing SOS Position [illegible]

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no further entries on this page

12/19/12

0600 Assumed WCRR SOM position

0615 Attended pre job meeting conducted by SOS. Discussed weather and its impacts on today's operations - currently snowing and expected to for most of day w/ dropping temps.

0700 Called into daily brief conducted by TA-54 SOM. Updated WCRR status to include rollover of yesterdays receipt from TA-54 and cancel the outgoing shipment.

0722 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0725 Notified by OSPAT they are delaying TRU shipment to WCRR due to weather.

0740 Released WO # 448179-01 50-54 Crane Repairs in Machine Shop - Final Inspections are to be completed prior to turnover back to FOD 5.

0800 Begging On first drum.

0900 Verified w/ OM and deputy FOD that the only crane/lifting device identified to be controlled w/ administrative locks is the A-frame/Gantry crane w/ electric Hoist CTG-004/HE-004 located outside Bldg 50-54. Crane is identified as Out of Service due to no legible inspection tag on A-Frame. Deputy FOD requested a red LO/TO be installed to comply w/ FOD instructions.

0945 SOS installed red LO/TO on HE-004 plug. Per P-103 policy simple LO/TO was applied w/ no IV required. Verified w/ Division LO/TO procedure which stated does not apply to plug control LO/TO.

1003 Notified by OSPAT that todays shipment is cancelled due to road conditions.

1200 Daily call in w/ Project Manager to status WCRR operations.

1315 Notified by RP-1 supervisor one of his technicians received a questionable e-mail, possible security violation, contacted OCSR/Security.

1335 Computer Security Representative on site. Reviewed EP-WCRR-RM-EOP-0304 Notified OM.

1458 After reviewing computer attachment w/ SIT, Computer Security determined no issue on questionable e-mail. For future emails from unknown senders w/ attachments computer security recommends deleting such e-mails prior to opening.

1618 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1630 Secured SOM position.

1818

No further entries this page

12/19 12

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0012
Examination Date:	1/25/2013
Waste Container ID:	92492
Video/Audio Recorded Media Number:	LA-RTR2-13-0012 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 123.0 kg Tare Wt.: 33.4 kg Net Wt.: 89.6 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: 92492

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hadware, pipe component lid, hand tool

AM:

OM: Scrap lead

OI:

C: Fiberboard liner sleeve, cloth material, fiberboard

R: Leaded rubber glove, rubber gloves

XPM: 90 mil plastic liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	13.0
Other Inorganic Materials (OI)	
Cellulosics (C):	18.0
Rubber (R):	8.0
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.6
Soils (S):	
Total WMP Weight:	89.6

CCP Radiography Data Sheet

Waste Container ID: 92492

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		1/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92492	Count Sequence Number:	21915
Operator:	D3PW2DK1\operator		
Assay Start:	1/28/2013 10:23:12 AM		
Description 1:	1LANDA1702		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 89.6 kg	Net:	89.6 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.480 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:	21915	Batch Number:	1LANDA1702
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92492	Analysis Date:	1/28/2013

Net Weight	89600.0 g			
Pu mass	6.41E+001	+-	1.35E+001	g
TRU Alpha Activity	5.39E+000	+-	8.29E-001	Ci
TRU Activity Concentration	6.01E+004	+-	9.26E+003	nCi/g
Pu-239 Equivalent Activity	5.53E+000	+-	8.30E-001	Ci
Pu-239 FGE	6.04E+001	+-	1.27E+001	g
Decay heat	1.69E-001	+-	2.58E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.54E-001	1.10E-004	1.64E-005	3.89E-006
PU238	5.89E-003	1.02E-001	2.15E-002	3.60E-005
PU239	6.01E+001	3.78E+000	7.97E-001	1.34E-003
PU240	3.85E+000	8.84E-001	1.86E-001	3.13E-004
AM241	1.78E-001	6.17E-001	1.30E-001	2.18E-004
PU241	7.63E-002	7.93E+000	1.67E+000	2.81E-003
PU242	1.28E-002	5.09E-005	1.07E-005	0.00E+000
SR90	1.83E-008	2.53E-006	1.51E-006	0.00E+000
CS137	2.88E-008	2.53E-006	1.51E-006	1.07E-006
U233	<LLD	<LLD	0.00E+000	7.58E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.12E-006
U238	<LLD	<LLD	0.00E+000	2.02E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 1/30/13

ITR: [illegible] Date: 1.31.13

Automated Independent Technical Review

Count Sequence Number: 21915
Batch Number: 1LANDA1702
Counter ID: MCS HENC #1
Container ID: 92492
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/28/2013

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.

Expert Review by: Sheri Chandler Date: 1-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92492**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130201c\
Data File : 92492.D
Acq On : 1 Feb 2013 10:34 am (#1); 01-Feb-13, 10:33:57 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 10:42:09 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	3.591	96	5997865	201.25 ppmv	0.02
15) Chlorobenzene-d5	5.923	117	5185421	177.00 ppmv	0.02

Target Compounds	Qvalue

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