55

ENTERED

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

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

Date: OCT 0 1 2014
Symbol: ENV-DO-14-0276
LAUR: 14-27236
Locates Action No.: Not Applicable

RECEIVED
OCT _1 2014
NMED
Hazardous Waste Bureau

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 16

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 sixteenth 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.

36615

Enclosure 1 includes the pertinent documentation for seventeen (17) of the original 267 parent waste containers and all associated daughter and granddaughter waste containers. The enclosed documentation for each parent waste container is separated by a tab and documentation for the daughter containers are highlighted within each tab by colored pages. These parent containers and their daughter and granddaughter containers were listed in the *Nitrate Salt Drums with Associated Waste Stream and Location Data for 267 Original Parent and 707 Current/Remediated Daughter Containers* table (as revised and submitted to the NMED on July 17, 2014).

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

Sincerely,

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

Sincerely,

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

AMD:GET:MPH:LVH/lm

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 16

Cy: Ryan Flynn, NMED, Santa Fe, NM, (E-File)
Tom Blaine, NMED, Santa Fe, NM, (E-File)
Steve Pullen, NMED/HWB, Santa Fe, NM, (E-File)
Timothy Hall, NMED/HWB, Santa Fe, NM, (E-File)
Trais Kliphuis, NMED, Santa Fe, NM, (E-File)
Peter Maggiore, NA-LA, (E-File)
Lisa Cummings, NA-LA, (E-File)
Gene E. Turner, NA-LA, (E-File)
Kirsten M. Laskey, NA-LA, (E-File)
Carl A. Beard, PADOPS, (E-File to aosburn@lanl.gov)
Michael T. Brandt, ADESH, (E-File)
Raeanna R. Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
James S. Clemmons, LTP, (E-File)
Donald L. Allen, LTP, (E-File)
Scott A. Miller, LTP-SSS, (E-File)

Cy (continued):
Selena Z. Sauer, LC-ESH, (E-File)
Kenneth M. Hargis, LTP-PTS, (E-File)
Mark P. Haagenstad, ENV-CP, (E-File)
Luciana Vigil-Holterman, ENV-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
env-correspondence@lanl.gov, (E-File)

Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 16
ENV-DO-14-0276
LA-UR-14-27236

October 2014

Los Alamos
NATIONAL LABORATORY
EST. 1943

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 16

ENV-DO-14-0276

LA-UR-14-27236

Date: OCT 0 1 2014

ParentID	Intermediate Daughters	PKG_ID	Overpacked Into
S854616		68456	
S854616		68536	
S855126		93597	
S855126		93598	
S855126		93599	
S855139	68818	68648	SB50442
S855139	68818	69163	SB50057
S855216	68816	69161	SB50035
S855216	68816	69210	SB50082
S855240		68381	
S855240		68385	
S855240		68391	
S855290		68537	
S855290		68539	
S855566	68761	69159	SB50074
S855566	68761	69185	SB50043
S855677		68544	
S855677		68556	
S855793	68725	68660	
S855793	68725	68685	
S855943		68383	
S855943		68384	
S860014	68735	69063	SB50107
S860014	68735	69066	SB50033
S860093		68554	
S860093		68615	
S860095		68452	
S860095		68550	
S860096	90927	69230	SB50072
S860096	90929	92674	
S861975		68480	
S861975		68511	
S861976		68661	SB50046
S861976		68686	SB50062
S861980		69234	SB50034
S861980		69237	SB50066

S8946/6

S854616

Container F 747340

File Options Reports Help

S854616

747340	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

S854616

S854616
- LA00000068536
- LA00000068456
- LA00000068538 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
50.0	%			

Working Copy
Date: 10-23-13c

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5854616

6.2[4] Date Processed: 10·23·13

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.: 010065
Cal. Due Date: 6-14-14

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

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

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

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

Performed By: [illegible] / [signature] 1266935 / 10-23-13
Waste Handling Tech (print) / Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 345[illegible]	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	456.1 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	83 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	539.1 lb
6.2[7]	(S) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☒ SAT ☐ UNSAT
6.2[17][D]	Drum lift hinge pin retaining clip replaced.	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.: 585 4616

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68536	68456		
10.1[4]	Daughter Drum Filter No.	LM-302	LM-283	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10309	L-6773		A
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No	N	N		
10.2[7][B]/10.2[6]	POC Item Description	A	A	N	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	5 Gallons	1 Gallon		A
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead Shielding	Lead Shielding		
10.3[9][A]	PCB-contaminated Waste Description	N	N		
10.3[9][B]	PCB Item ID No.	A	A		
10.3[10]	Remaining Waste Description	See Comments	See Comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	75%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastics Kitty Litter	Plastics Kitty Litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S854616

Comments: Nitrate Salts, Plastics, absorbed liquids. Liquid had a Ph of 4 & was neautralized to a 6. Kitty litter & Lead/SO added. Wypalls were added during cleaning of box.

11.1[1] Performed By: Justin Coper / [signature] 1266401 10-23-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mellies / CA 1240092 10/24/13 0833
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.: 501563
Lot No.: 02388366-1
Manufacture Date: 2013

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/- 4% cw and +/- 6% ccw	+/- 3% cw and +/- 6% ccw

Overpack filtered vent information:

Manufacturer: NucFil
Model No.: 013
Serial No.: SL-1040
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: Justin Lopez / [signature] 106[illegible] / 10-4-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Justin Lopez / [signature] 106[illegible] / 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 124[illegible] / 10/24/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68538

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: +-3% cw +-6% ccw

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

Performed By: Justin Coper / [signature] / 266436 / 10-24-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[34][D] 85-gal overpack drum gross weight (lb): 167.6 lb

Comments: N/C

8.1[1] Performed By: Justin Coper / [signature] / 266436 / 10-23-13
Waste Handling Technician (print) Signature Z # Date

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

ATTACHMENT 1
Page 1 of 2

9/23/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68456

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC1.5-2 SPUC
Serial No.: L-6273
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ± 6% ccw

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

Performed By: IAN MARONEY [signature] Z26208 9-23-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS
Serial No.: LM-283
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.: 68456

Comments: N/C

5.[35] Performed By: IAN MARQUEZ / [signature] 276205 9-23-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 240096 ~~10/23/13~~ 10/24/13 cm 10-24-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-23-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68456

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% FW ±6% rdg

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

Performed By: Justin Cyr / [signature] / 126886 / 10-23-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Justin Cyr / [signature] / 126886 / 10-23-13
Operator (print) / Signature / Z # / Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 6X456

6.[26] Scale File ID number: 3[illegible]

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

6.[28] Drum gross weight: 286.6 lbs

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

Comments:

6.[32] Performed By: Justin Cole / [signature] / 121495 / 10-23-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240091 / 10/24/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-21-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68536

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC1.5-2PUC
Serial No.: L-10309
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Michael Montoya / Brian Cordova — Signature — 191282 10/21/13 / 1287544 10/21/13
Operator (print) — Signature — Z # — Date

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS
Serial No.: LM-302
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.: 68536

Comments: N/C

5.[35] Performed By: Brian Cordova / [signature] / 191552 10/21/13 (Operator (print) / Signature / Z # / Date)

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240921 10/24/13 (Supervisor or designee (print) / Signature / Z # / Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68536

6.[9] Drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% ow ±6% over

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

Performed By: Justin Lopez / [signature] / 1061436 / 10-23-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Justin Lopez / [signature] / 1260435 / 10-23-13
Operator (print) / Signature / Z # / Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68536

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 434.2 lbs

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

Comments: N/A

6.[32] Performed By: Justin Lopez / [signature] / 1268386 / 10-23-13
Operator (print) / Signature / Z # / Date

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

1940
SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S854616 Container Type: 55-GAL Gross Weight (lbs): 472
Inner Seal #: 021297 Filter Prefix: LAVC Filter Serial #: 03169
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0741
Total PE-Ci Activity: 5.85E+00 Equivalent Combustible PE-Ci: 2.19E+00 AM-241 PE-Ci: 4.79E-01
Total Fissile Gram Equivalents: 64.3 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 4/27/2007 Comment: Impenetrable Obj.
Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Susan B. Ramsey / 100681 / 12/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts.
Net Wt: 412# Generator info shows 14 items of nitrate salts; weights range from 9-52#. No RTR BDR. Nitrate salts typically packaged in plastic bags; undocumented liquids & or debris may be present. RTR PS shows impenetrable object(s). No chemicals identified; applicable waste codes are for chromium, lead, & mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 1126071 / 1/18/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not pick or press on waste with hands. Use heavy gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And ratio of kitty litter

Performed By: Gilbert Martinez / Gilbert Mtz / 1149235 / 6/20/13
TRU Remediation Operations (Print) Signature Z Number Date
Joe Jerez / Joe Jerez / 221452 / 6/12/13

IHS Review - [illegible] ESP, may contain Pb HgO
No other concerns. 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021297

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	70X6-21NW1		18.220	NITRATE SALTS		35.6	52	1/13	G468
2	7LR1022NW1		6.190	NITRATE SALTS		1.54	52	1/13	G468
3	7LR1022NC1		8.400	NITRATE SALTS		1.73	53	1/13	G468
4	7LR1123NE1		9.630	NITRATE SALTS		1.34	52	1/13	G468
5	8LR1-1NW1		10.190	NITRATE SALTS		1.34	52	1/13	G468
6	8LR1-1NE1		9.570	NITRATE SALTS		1.66	52	1/13	G468
7	8MX1-1NW1		10.210	NITRATE SALTS		2.08	52	1/13	G468
8	8MX2-3NE1		23.280	NITRATE SALTS		16.15	52	1/13	G468
9	9LR2-4NW1		10.750	NITRATE SALTS		1.28	52	1/13	G468
10	8DS2-5NE1		6.360	NITRATE SALTS		0.84	52	1/13	G468
11	8LR3-6NW1		11.230	NITRATE SALTS		0.65	52	1/13	G468
12	8DS3-7NE1		5.300	NITRATE SALTS		1.07	52	1/13	G468
13	8LR4-8NW1		10.030	NITRATE SALTS		1.86	52	1/13	G468
14	8MX3-10NW1		4.490	NITRATE SALTS		1.24	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 214.

Material Type	SNM (grams)	Items Net Wt (kg)
52	66.65	135.45
53	1.73	8.40
Totals	68.38	143.85

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])	5854616					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	70					
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])	2932.43 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:

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), 110681 (Z#), 5/22/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130521c\
Data File : S854616.D
Acq On : 21 May 2013 2:10 pm (#1); 21-May-13, 14:09:39 (#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 14:18:41 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.532	96	4227988	201.25	ppmv	-0.04
15) Chlorobenzene-d5	5.881	117	3634843	177.00	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.602	GC1	20842m	2932.43	ppmv	

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

10-23-13

0600 Assuming WCRR operations center. - Coleman

0615 Pre-job being conducted by SOS.

0616 Late entry at 0610, outside rounds were started. (JC)

0624 Beginning inside rounds.

0635 Pre-job concluded.

0649 Item #63 is OOS, okay to proceed per CSE documentation.

0708 Late entry at 0705, inside rounds complete. (JC)

0725 Both rounds reviewed by SOS.

0726 Late entry at 0705, outside rounds complete. (JC)

0733 Mode change completed. We are now in operations in WCRRF yard and 50-69.

0741 JC 10-23-13 ~~0734~~ Bagging on drum #8818255

0744 Initiating a drum movement from transportainer to 50-69.

0753 Bag on complete.

0755 Drum movement into 50-69 complete.

0756 Being relieved by OCO, Clarissa Velarde. - Coleman

0757 Assuming WCRRF operations center - CVelarde

0830 Starting movement out of 50-69.

0851 movement out of 50-69 is complete.

0910 Bagging off 2 daughters, Bagging on 9855677

0940 Bag on, Bag off complete.

1107 Bagging off 1 daughter, Bagging on another.

1117 Bag on, off complete.

1145 Bagging off, bagging on 9855290

1210 Bag on, ~~Bag~~ 10-23-13 Bag off complete

1333 Bagging off 1 daughter, Bagging on another

1340 Starting movement out of 50-69.

1400 Bag on, Bag off is complete. movement out of 50-69 is complete.

1435 Bagging off, Bagging on 9854616

1458 Bag on, Bag off complete starting movement into 50

1536 movement into 50-69 completed

1655 Starting outside rounds

1762 Starting inside rounds.

- Continued on next pg - CVelarde

10-23-13 - Continued from previous page Orlando
1722 Completed outside rounds.
1730 Item #43 is OOS, POD in place okay to proceed per documentation.
1740 Late entry at 1633 bagging off 1 daughter, Bagging on 1 daughter. Orlando
1743 Bagging off last drum of the day.
1802 Bag off complete
1810 Rounds signed out by SOS
1820 Mode change performed TA50-69 and WCRRF now in warm standby.
23-15 18:30 End of day CCRRF operations outside is secure-Dkd

No further entries this page.

09

5049

10-23-13

0600 Assumed the WCRR SOM Position from [illegible].

0652 Completed the pre-job brief conducted by the SOS (Clayton)
The safety topic was bullying and safety of LADDERS
There are no transfers scheduled in or out. Roles and responsibilities were assigned. Attitude topic was discussed by the SOM.

0705 Completed the call in to AREA 4 - to update POD - scheduled activities.

0725 The SOS signed off the rounds after reviewing. SOM reviewed and signed off.

0733 Mode Change: WCRR Yard and 50/69 Facility transition from WARM/WARM to Operations/Operations.
Approval to perform procedural work is authorized by the SOM.

0741 Inside Operations report initiating bag-on of Parent ATOM 5818255

0753 Bag on was noted completed.

0758 Notification was received from the OIC that 30 gallon lid restraints will require FED approval prior to use. New restraints are being procured and will be issued after certification.

0903 Operations report bagging off 2 daughters and bagging on Parent 5855677

0940 Bag on and bag off was reported completed. Ops continue to process

1003 Craft supervisor requested review of slings, schackles and lift devices to evaluate to ensure none expire in October. Notification was made to the SOS.

1145 Operations initiate bag off and bag on of Parent 5855276

1210 Bagoff was noted completed. Rotation of personnel through lunch continue

1215 Completed the noon call in, with SOM, OIM, providing facility update.

1333 Bagging off 1 daughter, bagging on another - continue operations

1340 Outside movement from 50/69 to transportation initiated

1400 Bag On - Bag off complete and movement out of 50-69 complete

1435 Bagging off, Bagging on 5854616

1458 Bag off and Bag on completed, observing outside operations move out with RCT support to obtain RAD survey for eventual transfer

1650 Completed observing RW surveys and placing containers back into the area.

1610 All bagoffs were completed and the WCG is in a safe configuration

1820 Mode Change: WCRR Yard and 50/69 transition from Operations/Operations to WARM/WARM

1825 Secured the SOM position [illegible]

No further entries this page
[illegible]

10/23/13 WCRR SOS Log Book

0600 Assuming SOS position. CA

0615 Starting Pre-Job discussed ladder safety and anti-bullying, being respectful of others. Also ~~keep~~ cm 10-23-13 keeping a positive attitude while at work and out of work.

0635 Pre-Job complete.

0725 Signed off on the rounds.

0733 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0741 Bagging on S818255.

0744 Starting drum movement into 50-69.

0753 Bag on complete.

0755 ~~0756~~ Movement in complete.

0830 cm 10-23-13 ~~0756~~ Starting movement out of 50-69.
cm 10-23-13

0902 Bagging off 2 daughters, bagging on S855677

0940 Bag off/on complete.

1055 Bagging off 1st daughter, bagging on a 2nd.

1117 Bag off/on complete.

1145 Bagging off 2nd daughter, bagging on S855290

1210 Bag off/on complete.

1333 Bagging off 1st daughter, bagging on a 2nd.

1340 Starting movement out of 50-69.

1400 Bag off/on complete. Also move out complete.

1435 Bagging off 2nd daughter, bagging on S845616.

1458 Bag off/on complete. Also starting movement into 50-69.

1536 Move in complete.

1633 Bagging off first daughter, bagging on a 2nd.

1644 Bag off/on complete.

1743 Bagging off 2nd daughter to complete processing.

1802 Bag off complete

1810 Signed off on the rounds.

1820 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.

1825 Securing SOS position for the day. CA

No Further Entries on this Page

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-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68456
Video/Audio Recorded Media Number:	LA-RTR2-13-0120 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 130.0 kg Tare Wt.: 33.4 kg Net Wt.: 96.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 68456

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.0
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	84.6
Soils (S):	
Total WMP Weight:	96.6

CCP Radiography Data Sheet

Waste Container ID: 68456

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

RTR Operator:

Eric Lyles		10/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68456	Count Sequence Number:	23765
Operator:	D3PW2DK1\operator		
Assay Start:	10/31/2013 2:08:19 PM		
Description 1:	1LANDA1857		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 96.6 kg	Net:	96.6 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.660 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:	23765	Batch Number:	1LANDA1857
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:	68456	Analysis Date:	10/31/2013

Net Weight	96600.0 g		
Pu mass	6.63E+001	+- 2.18E+001	g
TRU Alpha Activity	1.18E+001	+- 4.95E+000	Ci
TRU Activity Concentration	1.22E+005	+- 5.13E+004	nCi/g
Pu-239 Equivalent Activity	1.19E+001	+- 4.95E+000	Ci
Pu-239 FGE	6.25E+001	+- 2.18E+001	g
Decay heat	3.82E-001	+- 1.64E-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	9.35E-007
U233	<LLD	<LLD	0.00E+000	7.39E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.01E-006
NP237	1.13E-001	7.94E-005	1.42E-005	3.26E-006
PU238	6.06E-003	1.04E-001	3.91E-002	9.57E-004
U238	<LLD	<LLD	0.00E+000	2.17E-005
PU239	6.22E+001	3.85E+000	1.35E+000	3.56E-002
PU240	4.01E+000	9.10E-001	3.44E-001	8.41E-003
AM241	2.02E+000	6.92E+000	4.75E+000	1.43E-001
PU241	7.61E-002	7.84E+000	2.96E+000	7.24E-002
PU242	1.33E-002	5.24E-005	1.98E-005	0.00E+000
AM243	2.18E-003	4.35E-004	7.88E-005	9.76E-006

Errors quoted at 1.000 sigma

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

ITR: D. [illegible] C Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23765 Batch Number: 1LANDA1857
Counter ID: MCS HENC #1
Container ID: 68456
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/31/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

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

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68456**

BDR Number: **LA13FG2114**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	217.31	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68456.D
Acq On : 8 Nov 2013 12:58 pm (#1); 08-Nov-13, 12:57:53 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 13:06:41 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.552	96	4687809	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.861	117	3632830	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.621	GC1	1634m	217.31 ppmv	

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

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

58541016

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68536
Video/Audio Recorded Media Number:	LA-RTR2-13-0120 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 197.0 kg Tare Wt.: 33.4 kg Net Wt.: 163.6 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:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68536

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	153.6
Soils (S):	
Total WMP Weight:	163.6

CCP Radiography Data Sheet

Waste Container ID: 68536

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

Comments: N/A

RTR Operator:

Eric Lyles		10/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68536	Count Sequence Number:	23759
Operator:	D3PW2DK1\operator		
Assay Start:	10/30/2013 3:44:38 PM		
Description 1:	1LANDA1856		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 164.0 kg	Net:	164.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.930 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23759
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68536

Batch Number: 1LANDA1856
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/30/2013

Net Weight	164000.0 g	
Pu mass	2.54E+001 +-	1.52E+001 g
TRU Alpha Activity	1.14E+001 +-	6.73E+000 Ci
TRU Activity Concentration	6.95E+004 +-	4.11E+004 nCi/g
Pu-239 Equivalent Activity	1.15E+001 +-	6.73E+000 Ci
Pu-239 FGE	2.40E+001 +-	1.51E+001 g
Decay heat	3.75E-001 +-	2.23E-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	1.42E-006
U233	<LLD	<LLD	0.00E+000	1.29E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.84E-006
NP237	1.94E-001	1.37E-004	3.00E-005	5.82E-006
PU238	2.32E-003	3.97E-002	2.57E-002	1.67E-003
U238	<LLD	<LLD	0.00E+000	2.70E-005
PU239	2.38E+001	1.48E+000	9.39E-001	6.22E-002
PU240	1.52E+000	3.46E-001	2.25E-001	1.46E-002
AM241	2.78E+000	9.53E+000	6.66E+000	2.72E-001
PU241	2.92E-002	3.00E+000	1.96E+000	1.27E-001
PU242	5.08E-003	2.01E-005	1.31E-005	0.00E+000
AM243	3.81E-003	7.61E-004	1.68E-004	1.80E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23759 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68536
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	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 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-52,53.
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: 10-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68536**

BDR Number: **LA13FG2114**

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

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68536.D
Acq On : 8 Nov 2013 1:32 pm (#1); 08-Nov-13, 13:31:48 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 13:40:17 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	3.542	96	4429030	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.851	117	3398965	177.50 ppmv	0.00

Target Compounds — Qvalue

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

S855126

S855126

Container P 760764

File Options Reports Help

S855126

760764	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

S855126

S855126
- 93600 – EMPTY
- 93599
- 93598
- 93597

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
33.3329851666667	%			

Working Copy
Date: 5-1-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S855126

6.2[4] Date Processed: 5-1-13

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: 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: James Sa[illegible] / [signature] 12166[illegible] / 05-01-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S 855126

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 430.2 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) 430.7 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)	NA Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S 855 126

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93597	93598		
10.1[4]	Daughter Drum Filter No.	LM-54	LM-59	N	
10.1[4]	Daughter Drum Bag Filter No.	L-6666	L-6668		A
10.1[4]	Daughter Drum Purchase Order No.	501011	501011		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BoP			
	Model No.	LCPK15-2SPVC			
	Serial No.	L-6630			
	Date of Manufacture	1-13			
10.2[5]	POC ID No	93599			
10.2[7][B]/10.2[6]	POC Item Description	Salt, Kitty litter & Plastic		N	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	95 11662			A
10.2[14]	POC Assembly Gross Weight (lb)	357.2			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	1 liter			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead	lead	N	A
10.3[9][A]	PCB-contaminated Waste Description			N	A
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	See Comments	N	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	100%		A
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic	Plastic		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S855125

Comments: Poly liner, 5 Gals Of liquid, Acid Nuetrizer Added, lead shielding, Nitrate Salts

11.1[1] Performed By: James Sandoval / 111662 / 05-01-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / 122452 / 5-2-13 0854
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.: 501012
Lot No.: 0233945
Manufacture Date: 12

5.[8] Overpack filtered vent information:

Manufacturer: ~~SPO~~ NUCFIL
Model No.: 013
Serial No.: 5L-1841
Manufacture Date: 10-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040614	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	± 4% cw ± 6% ccw	± 3% cw ± 6% ccw

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

Performed By: ADAM SEGOVIA [signature] 1216028 4-18-13
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: ADAM SEGOVIA [signature] 1216028 4-18-13
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] 1221452 5-2-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 5-1-13 cw

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

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

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 039373
Cal. Expiration Date: 09-11-13
Range in ft-lb: 10-80
Tolerance: ±1-3% cw

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

Performed By: James Sandoval [signature] 111662 05-01-13
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): _____ lb

Comments: N/C

8.1[1] Performed By: James Sandoval [signature] 111662 05-01-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez [signature] 122142 5-2-13
Supervisor or designee (print) Signature Z # Date

7A

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

Drum ID#: 93597

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 #: 50101
Lot #: 02334/13
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 SPUC
Serial #: L-66666
Date of Manufacture: 01/13

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 019DS
Serial #: LM-54
Date of Manufacture: 12/12

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 #: 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.

☑ Yes ☐ No

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

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 75.8
File ID #: 019065

- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Kevin Bekusak Operator Sign: Kevin Bekusak Z#: 238199 Date: 04/25/13

Verifier Print: James Sandal Verifier Sign: [signature] Z#: 116662 Date:

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

DRUM ID#: 93597

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): 10-80

Tolerance +/-3% cw + +/6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs) _____

Scale ID#: 029065

☑ 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: 05-01-13

Verifier Print/Sign: Justin Lopez [signature] Date: 5-1-13

1B

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

Drum ID#: 9B598

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 501011
Lot #: 0233413
Date of Manufacture: 12

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 #: 6CPVC-1.5-25PVC
Serial #: L-6668
Date of Manufacture: 1/13

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: LM-59
Date of Manufacture: 12-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	028369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/-4% cw +/-6% ccw	Tolerance:	+/-3% cw +/-6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Michael Montoya Signature: [signature] Z#: 191352

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 75.4
File ID #: 019065

☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Kevin Belasco Operator Sign: [signature] Z#: 238159 Date: 04/25/13
Verifier Print: James Samuel Verifier Sign: [signature] Z#: 116662 Date: 05-01-13

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

DRUM ID#: _____

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): 10-80

Tolerance +/-3% cw + +/-6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs) _____

Scale ID#: 079065

☑ 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: 05-01-13

Verifier Print/Sign: Brandon Chase Date: 5-1-13

3P72
1940

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S855126 Container Type: 55-GAL Gross Weight (lbs): 448
Inner Seal #: 021296 Filter Prefix: LAVC Filter Serial #: 04040
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0742
Total PE-Ci Activity: 5.40E+00 Equivalent Combustible PE-Ci: 2.03E+00 AM-241 PE-Ci: 4.97E-01
Total Fissile Gram Equivalents: 55.3 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None D007 D008 D009 LS 1/7/13
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 4/26/2007 Comment: Impenetrable Obj, Liner Not Punctured,
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☑ VE 11/20/12 ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D007, D008 and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.
Performed By: R.W. Jones / 117434 / 10-18-11
Production Control (Print) Signature Z Number Date

WDP Engineering

SUSAN S. RAMSEY 100681 11/20/12

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt. 388#. Generator info shows 11 items of nitrate salts, with weights ranging from 12-48#. No RTR BDR. RTR PS shows impenetrable item(s) & unpunctured liner. Nitrate salts typically packaged in plastic bags; other debris & undocumented liquids often present. Applicable waste codes are lead, chromium, & mercury. Repack w/ admixture is required

Performed By: Valerie Rhodes / Valerie Rhodes / 112607 / 1/7/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not Push or press on waste with hands. Use Heavy duty gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure.
Performed By: Jose Jerez / / 221452 / 2-5-13
TRU Remediation Operations (Print) Signature Z Number Date

ROBINSHAW 278995 2-11-13

HS REVIEW: RS 206362 11.27.12 NOTES: D007 = Chromium
D008 = Lead

Noncertified TRU Waste Drum Item Information

DrumID: 021296

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	8DS4-9NE1		21.740	NITRATE SALTS		19.98	52	1/13	G468
2	8LR5-11NE1		8.760	NITRATE SALTS		1.08	52	1/13	G468
3	8118-11NW1		7.880	NITRATE SALTS		0.27	52	1/13	G468
4	88AL-21N1		6.640	NITRATE SALTS		0.89	52	1/13	G468
5	80X1-16NE1		10.070	NITRATE SALTS	TW.	3.85	53	1/13	G468
6	82-1949		18.320	NITRATE SALTS		2.71	53	1/13	G468
7	8LR6-17NW1		9.050	NITRATE SALTS		[redacted]	53	1/13	G468
8	8LR7-20NW1		9.900	NITRATE SALTS		13.38	53	1/13	G468
9	80X3-21NE1		12.580	NITRATE SALTS		6.91	52	1/13	G468
10	8LR8-22NW1		5.400	NITRATE SALT		3.05	53	1/13	G468
11	8LS5-23NE1		21.170	NITRATE SALT		5.15	52	1/13	G465

Noncertified Waste Drum Material Summary

Gross Wt (kg): 203.2

Material Type	SNM (grams)	Items Net Wt (kg)
52	34.28	78.77
53	25.7	52.74
Totals	59.98	131.51

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/28/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Erik Lindell	Erik Lindell	123483	1-28-11

Container No. (7.[1]):	S870258	S855126	55298
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	13
New Filter Vent No.: (7.[8][A]):	72	72	13
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]):	5870258	5855126	55298
Hydrogen Reading (ppm) (7.[10]):	4623.92 ppm	4289.72 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	13
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	038371
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	5/6/11
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	± 3%
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	10 ft/lbs.

* 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 1/31/11
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 [signature] 117881 2-3-11
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110128c\
Data File : S855126.D
Acq On : 28 Jan 2011 11:04 am (#1); 28 Jan 2011 11:03 am (#2)
Operator : GR
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM FROM UNDER DRUM LID (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 28 11:12:15 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	3.243	96	4554399	209.00	ppm	0.00
15) Chlorobenzene-d5	5.930	117	3713125	184.00	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.861	GC1	1086232m	4289.72	ppm	

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

Vocgas.m Fri Jan 28 11:12:22 2011

5-1-13

0600 Assuming WCRF operations center, checked
0615 Pre job being conducted by SOS
0617 Starting outside rounds
0620 Starting inside rounds.
0624 Item #3 is unsat, FSR in place ok to proceed.
0644 Item #43 is OOS, POD in place ok to proceed
0648 Inside and outside rounds ~~[illegible]~~ 5713 complete.
0717 Rounds have been signed off by SOS
0735 mode change performed TA50-69 and WCRF yard now in operations
0830 Bagging on 9855126 after denesting is complete
0905 Denesting complete, 9855126 completed bag on
1028 Bagging off 1 daughter.
1033 Starting monument out of SC-49
1046 Bag on, Bag off complete.
1120 monument complete out of 50-69.
1211 Bagging off 1 daughter 1 POC
1238 Bag off of 1 daughter 1 POC complete
1441 Bagging off 9855126, Bagging on 9832241
1443 Denesting 9832241 then will be bagging on
1521 Completed bag on and denesting.
1525 Starting outside rounds
1530 Item #3 is unsat, FSR in place ok to proceed
1546 Completed outside rounds
1550 Starting inside rounds.
1615 Item 43 is OOS, POD in place ok to proceed.
1618 Inside rounds complete.
1624 Bagging off 1 daughter.
1640 Bag off, Bag on complete.
1800 Starting bag off of 9832241
1824 Completed bag off of 9832241
1835 mode change performed TA50-69 and WCRF yard on line
1850 Starting monument out of SC-49.
1903 Completed monument out of 50-69.

Continued on next page - [illegible]

5-1-13 Continued from previous page Cathode
1905 Completed movement out of 50-69
1910 mode change performed 50-69 in cold and WCRRF in warm standby
5-1-13 1915 End of day WCRRF operations water decline - CVCS
JJ

B 5-1-B

No further entries this page

169 PROJECT NAME 5/1/13 DATE

0600 Reviewed the previous shift turnover and assumed the WCRR SOM position. (Continue Shift)
0615 Attended the pre job briefing conducted by the SOS. Discussed immediate corrective action with SSW performing independent verification. Discussed unexpended verification and prior to surveillances.
0640 Call in with the SOD
0700 Call into daily TA54 SOM shift brief.
0730 Notified by operations that FE002 is making a louder noise than constant SOM will communicate with CSE and OM.
0735 Made change complete WCRR YARD/ 5.1.19 from WTRM/WARM to OPERATIONS/OPERATIONS.
0736 Late entry 0730 - Spoke with CSE and he concluded that drawings need to be changed at discretion of OM and operations. OM requested SOM to follow through with MSS operations may continue processing. (OM)
0750 SOM spoke to MSS manager a corrective work package is in place need to obtain signatures. Can perform work on 5/2/13. OM notified.
0825 Reviewed and Signed up on RCRTs for the week of 4/22/13
0910 Attended the critique for processing the incorrect drum into 5.1.19 at TA46. Corrective actions: 1) Shift under explaining (expectation) of instructions for moving waste containers between the transportainers and building T.4.2.19. 2.) Procedure clarification on expectations. Immediate actions taken upon discovery. 1) All waste container manual were corrected on the MAR/ Oracle Spreadsheets 2.) SSW independently verify all transfers.
1115 SOM wrote up Standing Order WCRR-SH-13-002. OM approved.
1200 Daily call in with the PM and OM to status WCRR and DVS.
1340 Released WO#458894-01 50-54 (m) Wet Auto Sprinkler System.
1400 Spoke to MSS supervisor and planner on FE002 maintenance. They will go review work package and part availability and will call SOM back with status of work schedule.
1500 SOM going to TA46 to review work packages.
1630 SOM returned back from reviewing work packages. Work package for FE002 USQ didn't have mode applicability. Laurence Garcia USQ preparer was notified and changes were made. Work package is ready to work on 5/2/13. MSS personnel will be available first thing tomorrow morning 0800 hrs.
1735 Notified by Inventory Control that Re-pack database and Oracle

13 SIGNATURE DATE
READ AND UNDERSTOOD DATE

5-1-13 Continued

5-1-13 aren't allowing creation of daughter drums or POCs for drum ~~#S822241~~ #S832241. C. Fernandez from WCATS has been notified and is working issue.

1750 C. Fernandez notified Inventory Control that issue needs to be solved by another W-CATS employee. Employee has been notified.

1800 OM notified. Authorized a few people to stay late to accomodate movements out and to place facility in COLD standby.

1820 Processing complete on drum #S832241. Waiting on WCATS personnel.

1835 Mode change complete. WCRR YARD/50.69 from OPERATIONS/OPERATIONS to WARM/WARM.

1836 SOM notified SOS to send personnel home and leave only enough personnel to perform movement. RP-1 supervisor notified as well.

1840 WCATS C. Fernandez called, issue on database has been corrected. Inventory Control verified and labels were printed and database updated.

1845 Late entry 1737 notified by SOS that containment pallets are on-site and have been placed in transportainer.

1905 Movements complete. WCRR processed 2 parents resulting in 4 parents and 2 POCs.

1910 Mode change complete. WCRR YARD/50.69 from WARM/WARM to WARM/COLD to support maintenance on 5-2-13.

1915 Leaving the SOM position. [signature]

CT 5-1-13

No further entries this page.

[signature] 5-1-13

WCRRF SOS LOGBOOK

5/1/13 0600 Assuming SOS position for the day for J-y
0615 Pre-Job brief being given by the PLC. Discussed operators ensuring that verification is made when calling out Parent drum numbers it to inventory control. Having two way communication. Discussed incident of wrong Parent number being processed and events that led up to it. Critique being held today to discuss and investigate further. Also discussed respirator incident that happened at TA-54, stressed to operators to ensure their respirators are working properly and inspect filters and cracks around the mouth piece. Also discussed operators shaking out their leather gloves prior to use to ensure any objects or items that may have been dropped in are cleared out prior to putting them on.
0635 Starting Monthly RWP Brief, Pre job concluded.
0700 RWP Brief complete.
0717 Reviewed and signed inside and outside rounds.
0735 Mode Change complete, WCRR yard and SD-69 are in Operations
0830 Starting to D-Nest 1 Parent from 85 gallon overpack and Bag on
0905 D-Nesting and Bag on Complete.
1000 Operators describing that parent drum that is currently bagged on had aproximately 5 gallons of liquids in it pH showing acidic
1300 Operators breaking for lunch
1400 Operators returning from lunch
1443 Bagging off first drum D-Nesting and bagging on second Parent
1520 D-Nesting and Bag on Complete
1723 Reviewed and signed inside and outside rounds.
1834 Inventory Control unable to print labels for the daughter drums that were generated. Inventory Control and a couple of operators staying late so that waste containers can be moved out to go to COID

tonight so that maintenance can start their work package on FE-002 first thing in the morning.

1835 Mode change complete. WLRR yard and 50-69 are in WARM

~~1900 Securing SOS position for the day. Jim Jay.~~ JJ 5-1-13

5:15 ~~1910~~ JJ 5-1-13 Computer system operational, labels are being printed out so that daughters can be moved out

9:05 ~~1915~~ JJ 5-1-13 Movement out of the facility complete.

1910 Mode Change Complete WLRR Facility in COLD, ~~50-69~~ JJ 5-1-13 Yard is in WARM

5/1/13 1915 Securing SOS position for the day. Jim Jay

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-RTR2-13-0067
Examination Date:	5/6/2013
Waste Container ID:	93597
Video/Audio Recorded Media Number:	LA-RTR2-13-0067 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 158.5 kg Tare Wt.: 33.4 kg Net Wt.: 125.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 93597

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Wire brush

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):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	106.6
Soils (S):	
Total WMP Weight:	125.1

CCP Radiography Data Sheet

Waste Container ID: 93597

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		5/6/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93597	Count Sequence Number:	22742
Operator:	D3PW2DK1\operator		
Assay Start:	5/8/2013 10:31:05 AM		
Description 1:	1LANDA1767		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 125.0 kg	Net:	125.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.710 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

013
08 6414

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22742	Batch Number:	1LANDA1767
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:	93597	Analysis Date:	5/8/2013

Net Weight	125000.0 g		
Pu mass	3.73E+001	+-	7.39E+000 g
TRU Alpha Activity	9.02E+000	+-	1.30E+000 Ci
TRU Activity Concentration	7.22E+004	+-	1.04E+004 nCi/g
Pu-239 Equivalent Activity	9.13E+000	+-	1.30E+000 Ci
Pu-239 FGE	3.48E+001	+-	6.86E+000 g
Decay heat	2.94E-001	+-	4.30E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.44E-001	1.03E-004	1.92E-005	4.03E-006
PU238	6.16E-003	1.05E-001	2.09E-002	5.17E-005
PU239	3.46E+001	2.14E+000	4.25E-001	1.05E-003
PU240	2.62E+000	5.95E-001	1.18E-001	2.92E-004
AM241	1.80E+000	6.18E+000	1.22E+000	3.03E-003
PU241	5.92E-002	6.10E+000	1.21E+000	2.99E-003
PU242	1.53E-002	6.05E-005	1.20E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.73E-007
U233	<LLD	<LLD	0.00E+000	8.73E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.61E-006
U238	<LLD	<LLD	0.00E+000	2.19E-005
AM243	2.30E-003	4.60E-004	8.69E-005	1.20E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 6·5·14

ITR: _____ Date: 6·6·14

014
CB 6/9/14

Automated Independent Technical Review

Count Sequence Number: 22742 Batch Number: 1LANDA1767
Counter ID: MCS HENC #1
Container ID: 93597
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 5/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.

015
RJ 6/9/14

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

Expert Review by: Bart B. Marsh Date: 6/3/14

015A
CS 6/9/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93597**

BDR Number: **LA13FG2056**

Sampling Date: **5/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	475.70	
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

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-RTR2-13-0067
Examination Date:	5/6/2013
Waste Container ID:	93598
Video/Audio Recorded Media Number:	LA-RTR2-13-0067 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 168.0 kg Tare Wt.: 33.4 kg Net Wt.: 134.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 93598

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic 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):	
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):	127.6
Soils (S):	
Total WMP Weight:	134.6

CCP Radiography Data Sheet

Waste Container ID: 93598

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		5/6/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93598	Count Sequence Number:	22748
Operator:	D3PW2DK1\operator		
Assay Start:	5/8/2013 2:43:26 PM		
Description 1:	1LANDA1767		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 135.0 kg	Net:	135.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
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

033
CS 6/9/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 22748
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 93598

Batch Number: 1LANDA1767
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 5/8/2013

Net Weight	135000.0 g		
Pu mass	1.23E+002	+-	2.83E+001 g
TRU Alpha Activity	2.08E+001	+-	3.11E+000 Ci
TRU Activity Concentration	1.54E+005	+-	2.31E+004 nCi/g
Pu-239 Equivalent Activity	2.11E+001	+-	3.12E+000 Ci
Pu-239 FGE	1.15E+002	+-	2.63E+001 g
Decay heat	6.72E-001	+-	1.02E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.66E-001	1.18E-004	2.31E-005	5.70E-006
PU238	2.04E-002	3.48E-001	8.00E-002	5.17E-005
PU239	1.14E+002	7.08E+000	1.63E+000	1.05E-003
PU240	8.66E+000	1.97E+000	4.52E-001	2.92E-004
AM241	3.31E+000	1.14E+001	2.61E+000	1.69E-003
PU241	1.96E-001	2.01E+001	4.63E+000	2.99E-003
PU242	5.06E-002	2.00E-004	4.59E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.40E-006
U233	<LLD	<LLD	0.00E+000	1.23E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.48E-006
U238	<LLD	<LLD	0.00E+000	3.81E-005
AM243	3.68E-003	7.36E-004	1.45E-004	1.69E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6·5·14

ITR: [signature] Date: 6·6·14

034
CS 6/9/14

Automated Independent Technical Review

Count Sequence Number: 22748 Batch Number: 1LANDA1767
Counter ID: MCS HENC #1
Container ID: 93598
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 5/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.

035
CS 6/9/14

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: 6/3/14

035A
CJ 6/9/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93598**

BDR Number: **LA13FG2055**

Sampling Date: **5/14/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	299.69	
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\130514c\
Data File : 93598.D
Acq On : 14 May 2013 2:26 pm (#1); 14-May-13, 14:26:03 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 14 15:34:54 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.574	96	4146082	201.25 ppmv	0.00
15) Chlorobenzene-d5	5.904	117	3582768	177.00 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.611	GC1	2130m	299.69 ppmv	

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

CCP Radiography Data Sheet

S855/26

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0067
Examination Date:	5/6/2013
Waste Container ID:	93599
Video/Audio Recorded Media Number:	LA-RTR2-13-0067 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 161.5 kg Tare Wt.: 145.1 kg Net Wt.: 16.4 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:	40 %

CCP Radiography Data Sheet

Waste Container ID: 93599

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

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):	1.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	12.9
Soils (S):	
Total WMP Weight:	16.4

CCP Radiography Data Sheet

Waste Container ID: 93599

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		5/6/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93599	Count Sequence Number:	22745
Operator:	D3PW2DK1\operator		
Assay Start:	5/8/2013 12:37:15 PM		
Description 1:	1LANDA1767		
Description 2:	POC - Gross Wt. = 161.5 Kg		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 16.4 kg	Net:	16.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.677 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

022

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22745	Batch Number:	1LANDA1767
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:	93599	Analysis Date:	5/8/2013

Net Weight	16400.0 g		
Pu mass	4.91E+000	+-	1.20E+000 g
TRU Alpha Activity	1.90E+000	+-	1.05E+000 Ci
TRU Activity Concentration	1.16E+005	+-	6.37E+004 nCi/g
Pu-239 Equivalent Activity	1.91E+000	+-	1.05E+000 Ci
Pu-239 FGE	4.59E+000	+-	1.12E+000 g
Decay heat	6.25E-002	+-	3.49E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.40E-002	1.00E-005	1.88E-006	1.47E-006
PU238	8.12E-004	1.40E-002	3.44E-003	5.23E-005
PU239	4.56E+000	2.87E-001	7.02E-002	1.07E-003
PU240	3.46E-001	7.94E-002	1.94E-002	2.96E-004
AM241	4.36E-001	1.51E+000	1.04E+000	6.59E-002
PU241	7.80E-003	8.11E-001	1.98E-001	3.02E-003
PU242	1.97E-003	7.81E-006	1.91E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.76E-007
U233	<LLD	<LLD	0.00E+000	3.05E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	9.32E-007
U238	<LLD	<LLD	0.00E+000	1.04E-005
AM243	4.08E-004	8.23E-005	1.52E-005	4.26E-006

Errors quoted at 1.000 sigma

Operator: D. R. [illegible] Date: 5-15-13

ITR: [illegible] Date: 5-15-13

Automated Independent Technical Review

Count Sequence Number: 22745 Batch Number: 1LANDA1767
Counter ID: MCS HENC #1
Container ID: 93599
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 5/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. 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: 5-9-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93599**

BDR Number: **LA13FG8032**

Sampling Date: **5/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	371.64	
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	3.46	
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\130522C\
Data File : 93599.D
Acq On : 22 May 2013 3:22 pm (#1); 22 May 2013 3:21 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : POC through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 22 15:29:26 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	2303679	206.00 ppm	0.00
15) Chlorobenzene-d5	5.939	117	2032322	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.268	GC1	91826	371.64 ppm	100
17) Toluene	4.779	92	16252	3.46 ppm	97

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

S855139

S855139

Container I 760709

File Options Reports Help

S855139

760709	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

S855139

- S855139
  - LA00000068818
    - LA00000069219 - EMPTY
    - LA00000069163 - LANL
      - LASB50057
    - LA00000068648 - LANL
      - LASB50442
  - W798275 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000068648	0.0	kg

5855139

49143

68648

ATTACHMENT 1
Page 1 of 4

1-11-14 ω

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68818

6.2[4] Date Processed: 1-11-14

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ~~☑ N/A~~ BG 1-11-14

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ~~☑ N/A~~ BG ~~1-11-14~~ 1-11-14

Performed By: _____ / _____ / _____
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68818

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 467.6 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) 572.6 lb

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

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A
Initials / Z# / Date

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 68815

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	691163 ✓	68648 ✓	N/A	
10.1[4]	Daughter Drum Filter No.	JL-838	LH-322		
10.1[4]	Daughter Drum Bag Filter No.	L-10357	L-6732		
10.1[4]	Daughter Drum Purchase Order No.	501892	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	N/A			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)			N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	5 GALLONS	2 GALLONS		
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description		N/A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	60%		
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.: 68848

Comments: ROOM TRASH, PLASTICS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING, HEX ARMORS.

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 2607129 / 1-11-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez / [signature] / 1492551 / 1/11/14 1005
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.: 501563
Lot No.: 02383646
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

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

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: _____

8.1[1] Performed By: Brian Gallegos / [signature] / 267129 / 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] / 147251 / 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

1-11-14 CV

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 609219

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-02-14
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: Brian Gallegos / [signature] / 1267129 / 1-11-14
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): _____ lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / [signature] / 1267129 / 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 1499355 / 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET 1/5/14 HS

5.[34][E] Drum ID No.: 69163

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

Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6 C PVC
Serial No.: L-10357
Manufacture Date: 05/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	08/05/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4%CW ±6%CCW	±3%CW ±6%CCW

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

Performed By: Jim Romero / [signature] / 1109902 / 1/5/14
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: JL-838
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.: 69163

Comments: N/C

5.[35] Performed By: Joe Romano (Operator (print)) [signature] Signature 1069021 Z# 6/5/14 Date

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] Signature M2251 Z# 6/12/14 Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69163

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% CWF 6% CCW

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

Performed By: BRIAN GALLEGOS / [signature] 267129 1-11-14
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.: 69163

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 413.8 lbs

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

Comments: N/C

6.[32] Performed By: BRIAN GALLEGOS / [signature] 1261129 1-11-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 1149257 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 11/12/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68648

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.: LCBC 1.5-2SPVC
Serial No.: L-6732
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036215
Cal. Expiration Date:	12-18-13	8-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4%cw ±6%ccw	±3%cw ±6%ccw

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

Performed By: MICHAEL NOWOYA [signature] 191352 / 11/12/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-322
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.: 68648

Comments: N/A

5.[35] Performed By: MICHAEL MONTOYA / [signature] / 191352 / 11/12/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 1492351 / 12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68648

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

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
Range: 16-80 ft-lb
Tolerance (+/-): ±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / [signature] / 1267129 / 1-11-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-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.: 68648

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 268.6 lbs

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

Comments: N/a

6.[32] Performed By: Brian Gallegos (Operator (print)) [signature] (Signature) 2607129 (Z #) 1-11-14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 1492357 (Z #) 1/11/14 (Date)

rking Copy
ate: 1-11-14

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 1-11-14 ~~68818~~ 68818

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): 467.6

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

Comments: N/C

8.1[1] Performed By: Brian Gallegos / [signature] 126729 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 142351 1/12
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] 142351 1/12/14 1005
SOS/SOM or designee (print) Signature Z # Date Time

Salvage 1940 SP78

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled @ HA new id given in WASTS. B Smyth 12/2/13

Container ID: S855139 / 168818 Container Type: 85-GAL Gross Weight (lbs): 478

Inner Seal #: 021290 Filter Prefix: LAVC Filter Serial #: 01777; 03683

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

TWSR Comments: LEACHED SOLIDS MST 12 A0743

Total PE-Ci Activity: 5.93E+00 Equivalent Combustible PE-Ci: 2.22E+00 AM-241 PE-Ci: 4.98E-01

Total Fissile Gram Equivalents: 64.3 Total Surface Dose Rate (mrem/hr): 10

EPA Code(s): [redacted] D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 7/2/2007 Comment: Impenetrable Obj.

Certified RTR Comment: None

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

Security Determination: ✓ Green] Yellow

Remediation Determination: VE ☑ PID ☐ Split ☑ Repack

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

TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Signature / 100681 / 11/20/12
Production Control (Print) 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 418#. Generator info. shows 13 items of nitrate salts, with weights ranging from 14-35#. No RTR BDR. RTR PS shows impenetrable item(s). Nitrate salts typically packaged in plastic bags; other debris &/or undocumented liquids often present. Applicable waste codes for lead, mercury, & chromium. Repack with admixture required.

Performed By: Valerie Rhodes / Valerie Rhodes / 1126609 / 1/7/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Proper PPE And Kitty Litter Rebs

Processing Determination: ✓ Accept [Reject

TRU Remediation Operations Comments: Do not push or press on waste with hands. Use heavyweight gloves during processing.

Performed By: Gilbert Martinez / Gilbert M. / 1148235 / 12/6/13
TRU Remediation Operations (Print) Signature Z Number Date

Jose Jerez / Jose Jerez / 221452 / 12/6/13

IHS REVIEW: RB 206362 11.27.12 NOTES: D007 = chromium
D008 = LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 021290

Item No.	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	8MX4-25NE1		13.060	NITRATE SALTS		13.69	52	1/13	G468	
2	8LR9-24NW1		15.610	NITRATE SALTS		2.77	52	1/13	G468	
3	8LA3-27NW1		7.360	NITRATE SALTS		4.76	52	1/13	G468	
4	8LA5-31NW1		6.670	NITRATE SALTS		7.47	52	1/13	G468	
5	8PRI-29NW1		6.800	NITRATE SALTS		2.99	52	1/13	G468	
6	8RR1-29NE1		6.900	NITRATE SALTS		4.1	52	1/13	G468	
7	8LR1026NW1		10.030	NITRATE SALTS		16.61	52	1/13	G468	
8	8LR1026NE1		13.830	NITRATE SALTS		3.12	52	1/13	G468	
9	8LR1128NW1		13.130	NITRATE SALTS		3.26	53	1/13	G468	
10	8MX5-35NF1		12.290	NITRATE SALTS		5.82	52	1/13	G468	
11	8OX4-33NW1		11.830	NITRATE SALTS		1.42	[redacted]	1/13	G468	
12	8LR1334NE1		10.650	NITRATE SALTS		1.54	53	1/13	G468	
13	8LR1232NE1		7.830	NITRATE SALTS		0.89	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 216.8

Material Type	SNM (grams)	Items Net Wt (kg)
52	62.75	104.38
53	5.69	31.61
Totals	68.44	135.99

LET

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/21/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Erik Lacelle	Erik Lacelle	123483	1-31-11

Container No. (7.[1]):	S793757	S855139	S822603
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene	10.87		
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	30.74		
1-Butanol			
Methanol		36.64	
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	41.61	36.64	Ø

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	S1973157	S8551159	S8222643
Hydrogen Reading (ppm) (7.[10]):	694.00 ppm	2102.43 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	41.61 ppm	36.64 ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 1/26/11
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 / [signature] 111886 1.31.11
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110121c\
Data File : S855139.D
Acq On : 21 Jan 2011 12:29 pm (#1); 21 Jan 2011 12:28 pm (#2)
Operator : GR
Sample :
LastName : Unit 8
Misc : 55 GAL DRUM FROM INSIDE 85 GAL OVERPACK. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 21 12:36:28 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	4352896	209.00	ppm	0.00
15) Chlorobenzene-d5	5.933	117	3582548	184.00	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.347	GC1	532371	2102.43	ppm	100
4) Methanol	0.788	31	26520	36.64	ppm	100

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

Vocgas.m Fri Jan 21 12:36:50 2011

1144 Assuming WCRRF operational center - Cleared.
0615 Pre job being conducted by SCB
0630 Pre job concluded by SCB
0635 Starting outside rounds.
0650 Starting inside rounds.
0701 ~~Inside~~ Outside rounds completed
0722 inside rounds complete
0728 Rounds signed off by SCB.
0730 mode change to operations, TAS-69 and WCRRF yard.
0755 moving out of 50-69
0804 Starting to decust 4 drums.
0814 movement out of 50-69 is complete
0930 Decusting complete, Bagging on U8742
0937 Bag on complete
1102 Bagging off 2 daughters, Bagging on U8818.
1138 Bag off and Bag on complete
1327 Bagging off 1 daughter bagging on another daughter
1339 Bag on, Bag off complete
1420 Bagging off, Bagging on U8826
1442 Bag on, Bag off complete
1443 Starting outside rounds
1452 noticed by operators that drum U8826 is full of water and glovebox has water in ports. PCO's monitoring and operators cleaning up
1514 Starting inside rounds. Outside rounds complete.
1520 Starting movement into 50-64 4 drums
1525 Bagging off 1 daughter, Bagging on 1 daughter
1537 return to 3 to ODS, PCO in place okay to proceed per SOP
Decontamination
1542 Bag off is complete movement into 50-69 complete
1553 Starting movement out 50-69
1600 Inside rounds complete
1620 movement out of 50-64 complete.
1751 Bagging off 1 daughter and PCO will put on porta cover.
- Continued on next page - Cleared

Tot Dougle 68815

1-11-14 -Continued from previous page - Roland)
1730 ~~Begin~~ @ 1-11-14 Bag off complete.
1735 starting move out of 50-69
1755 mode change to warm standby 50-69 and work yard,
1758 movement out of 50-69 complete.
1-11-14 1800 end of day work (operations center) secure - Cole
MG

no further entries this page

1/11/14 WCRR SOM

0600 Assumed the WCRR SOM position.

0630 Completed attending the pre job brief conducted by SOS (G Martinez). Discussed attention to detail in all things - not just processing/operations but support functions as well. Work for today to include denesting and prep of 4 drums first thing (SP-72's). Station 2 inner lead window was broken yesterday - operators are using steel plate instead of lead window for shielding (lower window)

0730 Completed Mode Change: WCRR Yard/Bldg 50-69 from Warm/Warm to Operations/Operations.

0731 Operators reset thermostat in 50-69 to 68°F.

0734 Late Entry @ 0725 - Contacted ES Lead working @ Dome 412 regarding RWP for processing in glovebag. RP-1 does not have it yet however work is continuing without - Localized ventilation is being used which is acceptable under current RWP being worked to. J. Cassel cleared w/ RP-1 that this is an acceptable path forward for this drum.

0819 Completed move out of 5 drums from 50-69 to transportainer

0930 Denesting operations completed of 4 drums - bagging on drum #68742.

0937 Bag on completed.

1000 SOM going to TA-54 to see 412 operations

1100 Meeting w/ J. Cassel at Bldg 412 noted the following - 1st drum was completed under the drum frame hood - pump was drained of all liquids w/ 2 daughters being generated. Operators were in process of moving in second drum to work. Certification of Glove bag proposed to take place in afternoon after completion of second drum.

1215 SOM back on site @ WCRR

1220 Late Entry @ 1138 - Completed all bag offs for parent #68742 (2 daughters total), bagged on drum #68818.

1442 Completed all bag offs for parent #68818 (2 daughters total), bagged on drum #68826

1452 Ops center notified that drum on WCG when opened was full of liquid - enough to flow into drum ports along bottom of WCG RCT's are monitoring for dose - operators taking steps to absorb and clean up.

continued on next page →

11/11/14 WCRR SOM continued.

1542 Completed bag off of 1 daughter. Continuing to process

1620 Completed move in of 4 drums to process and move out of 6 drums to transportainers

1700 ES SOS for 412 operations reported completing processing operations for day - finishing up housekeeping and WCATS updates. Completed drill and drain on 2 parents producing 4 daughters total. Certification of glovebag was also completed.

1730 Completed all bag offs for parent # 68824 (2 daughters and 1 POC total). Port Cover is in place

1740 Verified thermostat in 50-69 set to 72°F.

1755 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1758 Completed move out of 4 drums to transportainers.

1815 Secured the SOM position.

No further entries this page

PROJECT NAME WCER SES LOG Book NOTEBOOK NO.

1/11/99

0600 Assuming SES Position [illegible]

0615 Conducted Shift Brief discussed drum inside need Annesting. also discussed replacement of lead lined glass on station 2 was replaced with steel plate Pb penetrates makes more sense to have plate vs. glass on this station.

0620 Pre Job concluded

0924 Removed inside and outside Rounds.

0930 Mode Change Complete WCRCF In operations.

0955 starting out of SO-69

0804 Starting to dismount 2 drums.

0818 Move out complete

0938 Demating Complete bagging on 68742

0937 Bag on Complete

1106 Bagging off 2 daughters Bagging on 68818

1138 Bag on/off Complete

1327 Bagging off 1 daughter Bagging on another

1334 Bag on/off Complete

1420 Bagging off 1 on 68526

1442 Bag on/off complete

1448 starting Rounds

1452 notified by operators that drum 68526 is full of water and filtrator has water in Pads Rcti will monitor and operators will clean up.

1520 Starting movement in to SO-69 4 drums

1525 Bagging off 1 daughter Bagging on another

1547 Bag off/on Complete movement to Complete

1552 starting Move out

1620 Move out complete

1651 Bagging off 1 daughter and POC last drum for day

1730 Bag off Complete

1735 Starting Move out of SO-69

1753 Mode Change Completed WCRCF In Warm

1756 Move out complete

1/11/99 1750 end of Day Security SES Position [illegible]

MA

no further entries on this page

Best Available Copy

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0006
Examination Date:	1/16/2014
Waste Container ID:	69163
Video/Audio Recorded Media Number:	LA-RTR2-14-0006 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 187.0 kg Tare Wt.: 33.4 kg Net Wt.: 153.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 69163

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags, 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	147.6
Soils (S):	
Total WMP Weight:	153.6

CCP Radiography Data Sheet

Waste Container ID: 69163

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		1/16/2014
Print Name	Signature	Date

5855139

NDA 2000 Assay Report

Item Information

Item ID:	69163	Count Sequence Number:	24212
Operator:	D3PW2DK1\operator		
Assay Start:	1/27/2014 10:00:51 AM		
Description 1:	1LANDA1899		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 154.0 kg	Net:	154.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.780 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24212	Batch Number:	1LANDA1899
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:	69163	Analysis Date:	1/27/2014

Net Weight	154000.0 g		
Pu mass	3.26E+001	+-	1.44E+001 g
TRU Alpha Activity	8.07E+000	+-	4.02E+000 Ci
TRU Activity Concentration	5.24E+004	+-	2.61E+004 nCi/g
Pu-239 Equivalent Activity	8.14E+000	+-	4.02E+000 Ci
Pu-239 FGE	3.06E+001	+-	1.44E+001 g
Decay heat	2.63E-001	+-	1.33E-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	9.10E-007
U233	<LLD	<LLD	0.00E+000	8.70E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.69E-006
NP237	9.62E-002	6.78E-005	1.34E-005	3.92E-006
PU238	3.56E-003	6.10E-002	3.01E-002	1.22E-003
U238	<LLD	<LLD	0.00E+000	1.93E-005
PU239	3.05E+001	1.89E+000	8.93E-001	3.77E-002
PU240	2.04E+000	4.62E-001	2.28E-001	9.22E-003
AM241	1.65E+000	5.65E+000	3.91E+000	1.93E-001
PU241	4.07E-002	4.19E+000	2.07E+000	8.36E-002
PU242	8.15E-003	3.22E-005	1.59E-005	0.00E+000
AM243	4.31E-003	8.62E-004	1.72E-004	1.25E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-4-14

ITR: _____ Date: 2.4.14

10 2.4.14

Automated Independent Technical Review

Count Sequence Number: 24212 Batch Number: 1LANDA1899
Counter ID: MCS HENC #1
Container ID: 69163
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/27/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 1-29-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69163**

BDR Number: **LA14FG2010**

Sampling Date: **1/29/2014**

5855139

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	424.91	
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 : 69163.D
Acq On : 29 Jan 2014 12:11 pm (#1); 29-Jan-14, 12:10:38 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 12:19:23 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.588	96	3403689	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.881	117	2688404	177.50 ppmv	0.02
Target Compounds					Qvalue
1) Hydrogen	1.622	GC1	3195	424.91 ppmv	100

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

21

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-RTR2-14-0005
Examination Date:	1/15/2014
Waste Container ID:	68648
Video/Audio Recorded Media Number:	LA-RTR2-14-0005 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.: 122.0 kg Tare Wt.: 33.4 kg Net Wt.: 88.6 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:	55 %

CCP Radiography Data Sheet

Waste Container ID: 68648

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.5
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.1
Soils (S):	
Total WMP Weight:	88.6

CCP Radiography Data Sheet

Waste Container ID: 68648

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	1/15/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68648	Count Sequence Number:	24162
Operator:	D3PW2DK1\operator		
Assay Start:	1/21/2014 3:30:50 PM		
Description 1:	1LANDA1894		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 88.6 kg	Net:	88.6 kg
Container:	Volume: 208.0 l	Full:	55.0 %
Density:	0.770 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:	24162	Batch Number:	1LANDA1894
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:	68648	Analysis Date:	1/21/2014

Net Weight	88600.0 g		
Pu mass	6.64E+001	+-	2.70E+001 g
TRU Alpha Activity	1.63E+001	+-	2.82E+000 Ci
TRU Activity Concentration	1.84E+005	+-	3.19E+004 nCi/g
Pu-239 Equivalent Activity	1.64E+001	+-	2.82E+000 Ci
Pu-239 FGE	6.25E+001	+-	2.69E+001 g
Decay heat	5.32E-001	+-	9.17E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.21E-006
U233	<LLD	<LLD	0.00E+000	1.06E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.78E-006
NP237	1.72E-001	1.22E-004	2.38E-005	4.35E-006
PU238	7.27E-003	1.24E-001	5.67E-002	1.46E-003
U238	<LLD	<LLD	0.00E+000	2.68E-005
PU239	6.22E+001	3.85E+000	1.67E+000	4.53E-002
PU240	4.15E+000	9.43E-001	4.29E-001	1.11E-002
AM241	3.31E+000	1.14E+001	2.24E+000	2.03E-001
PU241	8.30E-002	8.55E+000	3.90E+000	1.00E-001
PU242	1.66E-002	6.57E-005	2.99E-005	0.00E+000
AM243	7.06E-003	1.41E-003	2.79E-004	1.42E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·22·14

ITR: _____ Date: 1·23·14

Automated Independent Technical Review

Count Sequence Number: 24162 Batch Number: 1LANDA1894
Counter ID: MCS HENC #1
Container ID: 68648
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/21/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok

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

Expert Review by: Sheri Chamberlain Date: 1-22-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68648**

BDR Number: **LA14FG2009**

Sampling Date: **1/24/2014**

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\140124c\
Data File : 68648.D
Acq On : 24 Jan 2014 1:47 pm (#1); 24-Jan-14, 13:46:25 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH ~~FITLER~~ FILTER (Sig #1); (Sig #2) 1-24-14 SA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 24 13:55:09 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	3.584	96	2890585	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.887	117	2353931	177.50	ppmv	0.03

Target Compounds	Qvalue

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

S855216

S855216

Container 747433

File Options Reports Help

S855216

747433	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

S855216

- S855216
  - LA00000068816
    - LA00000069222 – EMPTY
    - LA00000069210 – LANL
      - LASB50082
    - LA00000069161 – WCS
      - LASB50035
  - W798270 EMPTY

Task History

Transfer Details

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

UE Working Copy 1-12-14

5855216

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68816

6.2[4] Date Processed: 1-12-14

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Brian Gallegos Brian Gallegos 267129 1-12-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 688116

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 447.4 lb

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

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

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

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A

Initials / Z# / Date

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

N/A

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 68816

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69161	69210	N	
10.1[4]	Daughter Drum Filter No.	JL-832	JL-808	A	
10.1[4]	Daughter Drum Bag Filter No.	L-10358	L-12764		
10.1[4]	Daughter Drum Purchase Order No.	501892	501892		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N	A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)			N	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				A
10.3[5][A]	Free Liquid Volume/Units	3 GALLONS	2 GALLONS		
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 (%)	95%	70%		
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.: 68816

Comments: ROOM TRASH, PLASTICS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING.

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 1-12-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Darrel L. Blain / [signature] 1218069 / 1-21-14 / 1502
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 1-12-14

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 2013

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

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

Overpack filtered vent information:

Manufacturer:
Model No.:
Serial No.:
Manufacture Date:

DRUM PREPARED AT TA-54

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

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: _____

8.1[1] Performed By: Brian Gallegos / [signature] / 2671229 / 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Darrel L. Blain / [signature] / 2180691 / 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 1-12-14

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69222

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 08/02/14
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: Bevan Gallegos / [signature] / 2671129 1-12-14
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[34][D] 85-gal overpack drum gross weight (lb): 177.0 lb

Comments: N/A

8.1[1] Performed By: Brandon Chacz / [signature] 2071412 11-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] 278069 11-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1/5/14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69161

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC
Serial No.: L 10358
Manufacture Date: 6/13

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 QUINTANA (Operator (print)) | Joe Q (Signature) | 289987 (Z #) | 1/5/14 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: JL 832
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.: 69161

Comments: N/C

5.[35] Performed By: JOE QUINTANA (Operator (print)) [signature] (Signature) 239987 (Z #) 1/5/14 (Date)

7.1[4] Reviewed By: Darrel L. Blair (Supervisor or designee (print)) [signature] (Signature) 1218069 (Z #) 1-21-14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69161

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

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
Range: 16-80 ft-lb
Tolerance (+/-): ±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / Bri Galleg / 2107129 / 1-12-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69161

6.[26] Scale File ID number: 091065

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

6.[28] Drum gross weight: 370.0 lbs

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

Comments: N/C

6.[32] Performed By: BRIAN GALLEGOS / [signature] / 2671129 / 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] / 1218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1-11-14 a

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69210

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2SP/C
Serial No.: L-12764
Manufacture Date: 7/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	030245
Cal. Expiration Date:	11/12/14	8/5/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4%CW ±6%CW	±3%CW ±6%CW

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

Performed By: Brian Cordova [signature] [illegible] 1/10/14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: JL-808
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.: 69210

Comments: N/C

5.[35] Performed By: Brian Cordova | Operator (print) | Signature | RB7544 | Z # | 11/11/14 | Date

7.1[4] Reviewed By: Darrel L. Blain | Supervisor or designee (print) | Signature | 1218069 | Z # | 11-21-14 | Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69210

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

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
Range: 16-80 ft-lb
Tolerance (+/-): ±3% cw ±6% ccw

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

Performed By: Brian Gallegos / Bri Dallegs 1267129 1-12-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☐ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:	N/A	N/A
Range:	N/A in-lb	N/A ft-lb
Tolerance (+/-):	N/A	N/A

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69210

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 288.0 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: Brandon Chavez / [signature] 2047421 11-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] 1218069 11-21-14
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: 68816

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): 447.4

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: BRIAN GALLEGOS / [signature] / 267129 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] / 218068 / 1-21-14
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: Darrel L. Blain / [signature] / 218068 1-21-14 / 1500
SOS/SOM or designee (print) Signature Z # Date Time

1954 SP77

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

New container used @ 412 given new id in WCATS B. Zmyslla 12/2/13

Planning and Technical Solutions

Container ID: S855216 \ 658816 Container Type: 85 GAL DRUM Gross Weight (lbs): 516.1275
Total PE-Ci Activity: 2.38E+00 Equivalent Combustible PE-Ci: 8.94E-01
Total Fissile Gram Equivalents: 2.08E+01 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009

Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Drum venting and gas sampling completed on 2/27/13. Attachment 3 of DOP-1030 is attached. RTR pre-screen indicates liquids in 90 mil liner, lead liner, and rigid liner in the drum

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~295 lbs. and generator data shows 15 items of nitrate salts with weights ranging from ~12–27 lbs.

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

IHS Representative

Potential IHS Safety Risks: Many Contain D007, D008 and D009. Many Contain free liquids, ~~Also~~ No other hazards identified

Performed By: Johnny Sandoval (IHS Representative (Print)) | Signature | 124659 (Z#) | 8-25-13 (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 PPE And Kitty Litter Ratio

Performed By: Gilbert Martinez (TRU Operations (Print)) | Signature | 149235 (Z#) | 12/6/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use hexamer gloves during processing. Use the proper tool for the job.

Approved By: Jose Jerez (OM or designee (Print)) | Signature | 221452 (Z#) | 12/6/13 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 021412

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	8LA6-43NW1		6.970	NITRATE SALTS		0.51	54	1/13	G468
2	8LR1741NW1		10.290	NITRATE SALTS		1.03	54	1/13	G468
3	8LR1842NE1		14.760	NITRATE SALTS		0.68	54	1/13	G468
4	8LR2046NW1		10.450	NITRATE SALTS		5.92	54	1/13	G468
5	9LA1-1NE1		✓5.640	NITRATE SALTS		0.56	54	1/13	G468
6	9LR1-2NW1		8.090	NITRATE SALTS		0.97	53	1/13	G468
7	9RR1-3NE1		5.060	NITRATE SALTS		2.89	52	1/13	G468
8	9OX1-5NE1		✓12.350	NITRATE SALTS		2.59	52	1/13	G468
9	9OX2-7NE1		9.830	NITRATE SALTS		1.89	52	1/13	G468
10	8LA7-45NE1		8.120	NITRATE SALTS		0.58	54	1/13	G468
11	8LR1944NW1		11.440	NITRATE SALTS		0.43	54	1/13	G468
12	9LR2-4NW1		6.510	NITRATE SALTS		0.83	53	1/13	G468
13	9LR3-6NW1		7.380	NITRATE SALTS		0.53	52	1/13	G468
14	9MX1-8NW1		7.660	NITRATE SALTS		1.95	52	1/13	G468
15	9MX1-9NE1		9.530	NITRATE SALTS		1.34	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 205.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	11.19	51.81
53	1.8	14.60
54	9.71	67.67
Totals	22.7	134.08 ✓

ATTACHMENT 3
Page 1 of 3

TA-54 AREA G DRUM VENTING DATA SHEET

7.[2] Waste Container Unique Identifier: 9855216

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

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

55-gal drum: ☑ SAT ☐ UNSAT ☐ N/A

85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A

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

7.[9] Head Space Gas sample results:

	85-gal (☑ N/A)	55-gal (☐ N/A)
Hydrogen	____ %	0.126844 %
Methane	____ ppm	0.000 ppm
VOC	____ ppm	35.58 ppm
Filter Vent Unique Identifier No.	____	AN-369
Filter Vent Installed:		
Stub Stem (e.g., NucFil-007S)	☐ (☑ N/A)	☐ (☑ N/A)
Short Stem (e.g., NucFil-7DS)	☐ (☑ N/A)	☐ (☑ N/A)
Long Stem (e.g., NucFil-08DS)	☐ (☑ N/A)	☑ (☐ N/A)

ATTACHMENT 3
Page 2 of 3

7.[2] Waste Container Unique Identifier: S855216

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

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

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

7.[11][B][a] Number of required WIPP-approved filtered vents

- 85-gal Waste Container ____ ☑ N/A
- 55-gal Waste Container ____ ☑ N/A

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

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

ATTACHMENT 3
Page 3 of 3

7.[2] Waste Container Unique Identifier: 5855216

7.[11][B][f] Number of WIPP-approved filtered vents installed:

- 85-gal Waste Container _____ ☑ N/A
- 55-gal Waste Container _____ ☑ N/A

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

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

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

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

7.[13][A] (S) 55-gal waste containers to be transferred to WCRRF satisfy the following criteria (WCRRF SAC 5.10.2.3.4.a) B2 2/14/13 ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen concentration less than or equal to 2.4% (24,000 ppm)
- VOC less than or equal to 5,250 ppm

Comments: N/A

7.[11][M] Performed By: Chris Vigil 163082 2-27-13
7.[23] TRP/DOP Supervisor designee Printed Signature Date

7.[11][N] Vent and spark heaters ON and thermometer set ☐ SAT ☑ UNSAT

7.[11] Reviewed: Chris Vigil 163082 2-27-13
TRP/DOP Supervisor designee Printed Signature Date

DVS Gas Determination Results Report

Date: 2/27/2013

Waste Container Number: 5855216

Batch Number: DVS2130227

Filter Type Installed: 08DS

Number of Filters Installed: 1

Flammable Volatile Organic Compounds (VOCs)

Compound	Concentration (ppmV)	Upper Calibration Range (ppmV)	Exceeds Calibration (Y/N)	Calculated Value (if exceeds calibration)
Methanol	32.87	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	2.71	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	0	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

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

Total Flammable VOCs	35.58	I.V.R. Intial and Date	RP 5-15-13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	0.126844	%	6.45	%	N
Methane	0.000	ppm	15990.00	ppm	N

Comments:

AN-369

Doug Eisele
DVS Operator Print Name

Signature

05-15-13
Date

and

Cole

1114 Forming WCRRF Operations center - Cole
0555 Prejob being conducted by SOS.
0615 Starting inside rounds
0627 Starting outside rounds
0649 Outside rounds complete
0657 Item 43 OCS, PCD in place & Key to proceed per CSE documentation
0655 Inside rounds complete
0708 Barriers signed off by SOS
0717 Made change to operations inside TA5049 and WCRRF yard
0746 Bagging on 68759
0758 Bag on complete
0830 Bagging off 1 daughter, Bagging on another
0855 Bag on, Bag off complete
0933 Starting to direct 4 drums, bagging off the well bag on 68816
1042 Demobing is complete bagging on 68816 and bagging off 68759
1138 Operators notified Ops center that small forklift is leaking oil. SOM directed operator to move forklift out of yard and SOM has initiated Caution tag. FSR will be submitted.
1140 Bagging off 1 daughter, Bagging on 1 daughter
1150 Submitted a FSR # 110309 for small forklift leak.
1207 Bag on, Bag off complete
1350 Bagging off, Bagging on 68746
1411 Bag on, Bag off complete
1418 Starting inside rounds
1435 Starting monument cut in 5149
1509 Monument cut of 5149 complete
1521 Item 43 (1) OCS. PCD in place & Key to proceed per CSE documentation.
1525 Starting monument cut 5149
1536 Inside rounds complete.
- Continued on next page - Cole

1-12-14

1540 Starting outside rounds.

1543 movement into SD 69 complete

1553 Outside rounds complete

1400 Bagging off, bagging on W8815

HG 1420 Bag on, bag up complete

1805 Bagging off, scaffolders and will be installing patches.

1806 IAD in grace ~~PD1~~ PD1 069 is not a controlled grade for continuous ventilation operation rate.

VSV-172 and VSV-175 are closed isolating the open doors from main duct work. Continuous ventilation is determined to be operable in SCM and CM.

1830 Bag off, complete.

1835 made change to [illegible] and [illegible]

1-12-14 1900 End of day WCRH operations center secure complete

Ventilation status stuff

11/12/14 WCRR SOM.

0600 Assumed the WCRR SOM position.

0630 Completed attending the pre job brief conducted by SOS G. Martinez. ES IH safety topic was pay attention to pinch points - last work day of week so finish safely. Discussed work plan for today - have one drum ready to put on box and 4 for denesting/prepping. Operators discussed having enough Kitty litter staged in WCG in case another SP72 drum contains large amounts of liquid similar to third drum process yesterday

0709 Completed Mode Change WCRR Yard/Bldg 50-69 from Warm/Warm to Operations/Operations

0758 Completed bag on of parent # 68759

0855 Completed bag off of 1 daughter, Continuing to process

1042 Operators reported denesting of 4 drums completed. All bag offs for parent # 68759 are complete (2 daughters total) and bagged on drum # 68816.

1140 Operators reported hydraulic leak on mast of small Toyota Forklift. Forklift moved to admin yard next to Bldg 50-54, and caution tagged "Do Not use". FSR submitted # 116309.

1207 Completed bag off of 1 daughter, continuing to process

1411 Completed all bag offs for parent # 68816 (2 daughters total), bagged on drum # 68760.

1445 SOS ~~informed~~ 11/12/14 reported that SED's package for drum # 58619 could not be found. Holding off moving drum into 50-69 until package is located or reproduced from Sel. Package Manager.

1545 During MOV walkdown of WCRR Yard identified gage lines to PDI-009 are seperated from gage. Gage reading is not a credited reading for operation of the Ventilation System and is not on daily roundsheets. Notified OM.

1555 Notified Engineering On Call L Moore regarding PDI-009 gage lines He will notify CSE C. Pilcher and start work package to troubleshoot/repair. Recommended closing isolation valves if possible to isolate openings from main duct work. Will investigate if location of valves will allow. Directing RP-1 to perform survey even though gage lines are downstream of HEPA filters

Cont. next page →

1/12/14 WCRR SOM continued.

1652 Survey of gage lines for PDI-009 are MDA. Values US-V-172 and 175 are closed. ~~POD - Prompt~~ RAG 1/12/14 Immed. Operability Determination completed that Confinement Vent Sys is operable. Gage lines from main ductwork are isolated and PDI-009 is not a credited gage for system operation. OM concurs.

1700 Late Entry @ 1628 Completed all bag offs for parent #68760 (1 daughter total), bagged on 68815. RAG

1805 Bagging off 2 daughters

1810 Verified 50-69 thermostat is reset to 77°F.

1832 All bag offs completed for parent # 68815 (2 daughters total). Port Cover in place.

1835 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1840 SOS reported that operators performed a sweep up of the WCG. Did not have time for a thorough wipe down and glove inspection.

1900 Secured WCRR SOM.

No further entries this page
RAG

PROJECT NAME WCRR SES LEG Bank NOTEBOOK NO.

1/17/14
0600 Assuming Position [illegible]
0615 Conducting Shift brief
0620 Starting Rounds
0630 Concluded shift brief
0708 Reviewed Inside Outside Rounds.
0709 Made Change Complete WCRRF 450 corrections.
0748 Bagging on 68754
0758 Bag on Complete
0830 Bagging off / daughter bagging on shutter
0855 Bag on/off complete
0933 starting to deconest 11 drums bagging off for 68816
1042 Deconesting and bag on/off complete
1138 Operators noticed small Fork Lift leaking oil Ex yard
Placed out of yard Caution Tag was applied FSX will be
Submitted
1146 Bagging off / daughter bagging on Another
1207 Bag on/off Complete
1351 Bagging off for 68760
1411 Bag on/off Complete
1448 Starting Rounds
1455 starting move out of 50-69
1505 Move out Complete
1525 Movement into 50-69 started.
1529 Movement In Complete.
1600 Bagging off for 68815
PM 11:28 Bag on/off Complete
1805 Starting bag off of final drum
1833 bag off Complete
1835 Made Change Complete WCRRF In Lowry
1/17/14 8:45 End of Day SECURING SES Position [illegible]

no
further
entries
on
this
page

Best Available Copy

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69161
Video/Audio Recorded Media Number:	LA-RTR2-14-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 167.5 kg Tare Wt.: 33.4 kg Net Wt.: 134.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 69161

Section 3: Container Inventory and Comments (Detailed descriptions)
IM:
AM:
OM:
OI:
C:
R:
XPM: Plastic bags, 90 mil liner lid
OR:
IN: Homogeneous solids
S:

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	126.1
Soils (S):	
Total WMP Weight:	134.1

CCP Radiography Data Sheet

Waste Container ID: 69161

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

Comments: N/A

RTR Operator:

Michael Simmons		1/17/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69161	Count Sequence Number:	24153
Operator:	D3PW2DK1\operator		
Assay Start:	1/18/2014 2:25:12 PM		
Description 1:	1LANDA1893		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 134.0 kg	Net:	134.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
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

DS 1-23-14
~~33~~
32

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24153	Batch Number:	1LANDA1893
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:	69161	Analysis Date:	1/18/2014

Net Weight	134000.0 g		
Pu mass	8.65E+000	+-	3.64E+000 g
TRU Alpha Activity	5.02E+000	+-	8.81E-001 Ci
TRU Activity Concentration	3.75E+004	+-	6.58E+003 nCi/g
Pu-239 Equivalent Activity	5.06E+000	+-	8.82E-001 Ci
Pu-239 FGE	7.97E+000	+-	3.62E+000 g
Decay heat	1.65E-001	+-	2.92E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.27E-008	1.75E-006	9.24E-007	0.00E+000
CS137	2.01E-008	1.75E-006	9.24E-007	7.68E-007
U233	<LLD	<LLD	0.00E+000	6.39E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.87E-006
NP237	7.78E-002	5.48E-005	1.07E-005	2.84E-006
PU238	2.05E-003	3.51E-002	1.69E-002	2.19E-003
U238	<LLD	<LLD	0.00E+000	1.53E-005
PU239	7.87E+000	4.88E-001	2.24E-001	3.05E-002
PU240	7.40E-001	1.68E-001	8.08E-002	1.05E-002
AM241	1.26E+000	4.33E+000	8.48E-001	1.32E-001
PU241	2.31E-002	2.38E+000	1.15E+000	1.49E-001
PU242	9.54E-003	3.77E-005	1.81E-005	0.00E+000
AM243	1.95E-003	3.90E-004	7.67E-005	8.77E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1.22.14

ITR: _____ Date: 1.23.14

DS 1.23.14

~~34~~ 33

Automated Independent Technical Review

Count Sequence Number: 24153
Batch Number: 1LANDA1893
Counter ID: MCS HENC #1
Container ID: 69161
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 1/18/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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-52,54,53
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 Chambers Date: 1-21-14

DS 1-23-14
~~35~~
34

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69161**

BDR Number: **LA14FG2012**

Sampling Date: **1/31/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	220.37	
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\140131c\
Data File : 69161.D
Acq On : 31 Jan 2014 12:54 pm (#1); 31-Jan-14, 12:54:07 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 13:02:58 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	3.558	96	3258784	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.861	117	2499089	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.615	GC1	1657m	220.37	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
☐ RTR Examination ☐ RTR Replicate Scan ☒ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69210
Video/Audio Recorded Media Number:	LA-RTR2-14-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	☒ 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.: 130.5 kg Tare Wt.: 33.4 kg Net Wt.: 97.1 kg
Rigid Liner and Liner Vent Description:	Liner: ☒ No ☐ Yes Lid: ☒ No ☐ Yes Type: ☐ 30-mil ☐ 90-mil ☐ 110-mil ☐ 125-mil Vented: ☐ No ☐ Yes ☒ N/A Punctured: ☒ No ☐ Yes Mechanical Vent: ☒ No ☐ Yes Fiberboard Liner: ☐ No ☒ Yes Lead Lined: ☒ No ☐ Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	55 %

CCP Radiography Data Sheet

Waste Container ID: 69210

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):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	71.1
Soils (S):	
Total WMP Weight:	97.1

CCP Radiography Data Sheet

Waste Container ID: 69210

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: This Independent Observation agrees with the Original Scan.

RTR Operator:

Thad Hasselstrom	[signature]	1/17/2014
Print Name	Signature	Date

5855216

NDA 2000 Assay Report

Item Information

Item ID:	69210	Count Sequence Number:	24152
Operator:	D3PW2DK1\operator		
Assay Start:	1/18/2014 1:43:15 PM		
Description 1:	1LANDA1893		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 97.1 kg	Net:	97.1 kg
Container:	Volume: 208.0 l	Full:	55.0 %
Density:	0.850 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

DS1-23-14
~~30~~
29

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24152	Batch Number:	1LANDA1893
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:	69210	Analysis Date:	1/18/2014

Net Weight	97100.0 g		
Pu mass	7.15E+000	+-	1.51E+000 g
TRU Alpha Activity	3.12E+000	+-	1.41E+000 Ci
TRU Activity Concentration	3.21E+004	+-	1.45E+004 nCi/g
Pu-239 Equivalent Activity	3.16E+000	+-	1.41E+000 Ci
Pu-239 FGE	6.58E+000	+-	1.51E+000 g
Decay heat	1.03E-001	+-	4.68E-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	5.33E-007
U233	<LLD	<LLD	0.00E+000	4.35E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.22E-006
NP237	4.19E-002	2.95E-005	6.16E-006	1.97E-006
PU238	1.70E-003	2.91E-002	7.87E-003	1.44E-003
U238	<LLD	<LLD	0.00E+000	1.44E-005
PU239	6.51E+000	4.04E-001	9.34E-002	2.01E-002
PU240	6.12E-001	1.39E-001	3.76E-002	6.91E-003
AM241	7.43E-001	2.55E+000	1.41E+000	4.18E-002
PU241	1.91E-002	1.97E+000	5.34E-001	9.79E-002
PU242	7.89E-003	3.12E-005	8.44E-006	0.00E+000
AM243	1.07E-003	2.14E-004	4.49E-005	6.06E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·22·14

ITR: _____ Date: 1·23·14

DS 1·23·14
~~31~~ 30

Automated Independent Technical Review

Count Sequence Number: 24152
Batch Number: 1LANDA1893
Counter ID: MCS HENC #1
Container ID: 69210
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 1/18/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,53
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 1-21-14

DS 1.23.14
~~32~~
31

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69210**

BDR Number: **LA14FG2012**

Sampling Date: **1/31/2014**

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\140131c\
Data File : 69210.D
Acq On : 31 Jan 2014 1:18 pm (#1); 31-Jan-14, 13:18:00 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 13:27:37 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	3.584	96	3216725	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.881	117	2531931	177.50 ppmv	0.02

Target Compounds	Qvalue

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

S855240

S855240

Container 754018

File Options Reports Help

S855240

754018	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

S855240

S855240
- LA00000068391
- LA00000068381
- LA00000068385
- LA00000068402 – EMPTY

Task History

Transfer Details

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

Working Copy
Date: 9-17-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S855240

6.2[4] Date Processed: 9-17-13

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.: 0190605
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Frederick Ashlety / [signature] / 1228826 / 9-17-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: S8 55240	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	431 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	120 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	551 lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[17][D]	Drum lift hinge pin retaining clip replaced.	Initials Z# Date
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S8 55240

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68381	68385		
10.1[4]	Daughter Drum Filter No.	KL-549	KL-538	N	
10.1[4]	Daughter Drum Bag Filter No.	L-6891	L-8145		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578	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	BOP			
	Model No.	6cpvc1.5Spac			
	Serial No.	L6685	N		
	Date of Manufacture	1-13			
10.2[5]	POC ID No	68391		A	
10.2[7][B]/10.2[6]	POC Item Description	Nitrate salts kitty litter	A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BC 204742		N	
10.2[14]	POC Assembly Gross Weight (lb)	388.0			
10.2[15]	POC Rad. Survey Results (mrem/hr)	690.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N A	N		
10.3[5][A]	Free Liquid Volume/Units	3 gal	A		
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	Lead	N	
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	A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	50%		
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic kitty litter	plastic kitty litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5855240

Comments: plastic, Lead, Nitrate salts, Liquid, kitty litter

11.1[1] Performed By: Brandon Chavez / [signature] R04712 / 9-17-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: G [signature] / [signature] 14938 / 9/17/13 1815
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-17-13 ω

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414996
Lot No.: 217570
Manufacture Date: 2011

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	03836
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.: 01905
Serial No.: EK-1177
Manufacture Date: 5-10

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] / Z0471821 / 9-17-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] / Z0471821 / 9-17-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mk / [signature] / Z4423 / 9/17/13
Supervisor or designee (print) Signature Z # Date

Date: 9-17-13w

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68402

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: Brandon Chavez / [signature] 1204742 9-17-13
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): 168.2 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 1204742 9-17-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: [signature] / [signature] 1492[illegible] 9/17/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-10-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68381

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: GCPVC 1.5-2 ~~5CPVC~~ ~~5PVC~~ 9-11-13
Serial No.: L-689L
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:	12-18-15	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: IAN MARDUEL [signature] 276269 9-11-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: KL-549
Manufacture Date: 11/11

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68381

Comments: N/A

5.[35] Performed By: Ian Manquez | Signature | 276705, 9.11.13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G Martinez | Signature | 144285 9/17/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 9/17/13 HS

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68381

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

M&TE No.: 038376
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: +/- 3% cw +/- 6% ccw

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

Performed By: Brandon Chavez / [signature] 10478219-17-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Brandon Chavez / [signature] 10478219-17-13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68381

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 325.2 lbs

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

Comments: N/A

6.[32] Performed By: Brandon Chavez / [signature] [illegible] 9-17-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149235 9/17/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-10-13a

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68385

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-2 SPVC
Serial No.: L-8145
Manufacture Date: 1-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: JON MARQUEZ / [signature] Z[illegible] 9-11-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NWCFIL
Model No.: 019DS
Serial No.: KL 538
Manufacture Date: 11-11

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68385

Comments: N/C

5.[35] Performed By: IAN MAZWELL / [signature] 1276705, 9-11-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G [illegible] / [signature] 14935, 9/12/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 9/17/13 HSW

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68385

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

M&TE No.: 038376
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±6.3% ±6%

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

Performed By: Brandon Chavez / [signature] B47R 9-17-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Brandon Chavez / [signature] B47R 9-17-13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68385

6.[26] Scale File ID number: 09065

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

6.[28] Drum gross weight: 326.4 lbs

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

Comments: N/C

6.[32] Performed By: Brandon Clark / [signature] [illegible] / ~~9-18-13~~ 9-17-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martin / [signature] [illegible] / 9/17/13
Supervisor or designee (print) Signature Z # Date

1940
SP70

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S855240 Container Type: 55-GAL Gross Weight (lbs): 439
Container Seal #: 021291 Filter Prefix: LAVC Filter Serial #: 01972
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0745
Total PE-Ci Activity: 1.19E+01 Equivalent Combustible PE-Ci: 4.46E+00 AM-241 PE-Ci: 1.02E+00
Total Fissile Gram Equivalents: 129.1 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 4/28/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 22
Certified RTR Comment: None
Prohibited Items: ☑ Sealed > 4 Liters ☒ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) / Signature / 100681 (Z Number) / 12/20/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 379#, Generator info shows 12 items of nitrate salts; weights range from 15-48#, No RTR BDR. Nitrate salts typically packaged in plastic bags, undocumented liquids &/or other debris may be present. RTR PS shows prohibited liquids & impenetrable objects). No chemicals identified; nitrate salts carry waste codes for chromium lead & mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112607 (Z Number) / 1/18/13 (Date)

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And Ratio ~~of Kitty Litter~~.

Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) / Signature / 1149235 (Z Number) / 6/19/13 (Date)

Jose Jerez / Jose Jerez / 221452 / 6-22-13

1HS Review: Jalny Amaller (CS), may contain Pb, Hg + Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021291

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	8MX5-35NW1		12.090	NITRATE SALTS		3.11	52	1/13	G468
2	8MX6-36NW1		21.920	NITRATE SALTS		101.5	52	1/13	G468
3	8MX6-36NE1		16.240	NITRATE SALTS		6.5	52	1/13	G468
4	80X6-40NW1		9.480	NITRATE SALTS		2.05	52	1/13	G468
5	8LR1437NW1		11.900	NITRATE SALTS		1.7	52	1/13	G468
6	80X5-38NW1		13.000	NITRATE SALTS		2.31	52	1/13	G468
7	8LR1537NE1		9.460	NITRATE SALTS		3.22	54	1/13	G468
8	8LR1639NE1		7.000	NITRATE SALTS		0.44	54	1/13	G468
9	90X4-18NE1		11.460	NITRATE SALTS		11.62	52	1/13	G468
10	9LR6-18NW1		8.080	NITRATE SALTS		1.09	53	1/13	G468
11	9LR5-17NW1		7.390	NITRATE SALTS		1.02	53	1/13	G468
12	9MX4-22NE1		8.220	NITRATE SALTS		2.9	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	131.65	104.31
53	2.11	15.47
54	3.66	16.46
Totals	137.42	136.24

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])	S855246					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	072					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	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)), 238816 (Z #)

Comments:

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

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

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 5/20/13 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130411c\
Data File : S855240.D
Acq On : 11 Apr 2013 12:43 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL THROUGH UNOBSTRUCTED 072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 12:54:18 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	2001072	206.00 ppm	0.00
15) Chlorobenzene-d5	5.939	117	1787646	179.50 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Thu Apr 11 12:54:25 2013

9-17-13

0600 Assuming WCRRF OCO position - Velarde

0600 Assuming WCRRF OPS CENTER IN TRAINING HSMITH

0615 PRE-JOB BRIEFING CONDUCTED BY SOS

0633 PRE JOB BRIEFING CONCLUDED

0714 OPERATORS ENTER BUILDING TO BEGIN PROCESSING

0808 BAGGING OFF 1 DAUGHTER AND 2 POC's

0815 OPERATORS NOTIFIED RCT's STROBE IN HI-BAY NOT LIT

0823 ~~RCT~~ 9/17/13 HS ~~OPR~~ 9/17/13 HS OPERATORS NOTIFIED OPS CENTER RED STROBE IN HI BAY IS NOW WORKING.

0853 BAG OFF COMPLETE, BAGGED OFF 1 DAUGHTER 2 POC

1029 BAGGING OFF 1 DAUGHTER, BAGGING ON S 855240

1058 BAGOFF, BAG ON COMPLETED

1130 STARTING MOVEMENT INTO TA50-69

1144 MOVEMENT INTO TA50-69 IS COMPLETE

1151 LATE ENTRY 1135 PAUSING WORK DUE TO POTENTIALLY CONTAMINATION ~~CAUSED BY~~ 9/17/13 HS GLOVE, OPERATOR HAD FULL BODY FRISK. NO CONTAMINATION DETECTED HSMITH ON STATION 3 HSMITH

1201 OPERATOR ADVISED BY RCT NO CONTAMINATION. OKAY TO CONTINUE THE PROCESS. NO CONTAMINATION ON GLOVE

1202 PER RCT SUPERVISION, REQUESTING MORE SURVEYS TO BE PERFORMED

1211 PER RCT ~~SUPERVISOR~~ 9/17/13 HS SUPERVISOR FOLLOW UP SURVEYS NOA

1224 OPERATORS EXITING FOR LUNCH

1310 OPERATORS ENTERING BUILDING TO CONTINUE PROCESSING

1415 Starting movement out of TA-69 to transportainer.

1453 Bagging off 1 POC and 1 Daughter this will [illegible] processing.

1524 Bag on, Bag off is complete.

1526 Movement out of TA-69 is complete

1547 Starting inside [illegible].

1611 Item #63 in CCN. POC [illegible] be placed in the accumulator.

-Continued on next page [illegible]

9-17-13 — Continued from previous page - Orlando

1407 Inside rounds complete.

1415 Bagging off, bagging on 9X5544B

1430 Starting roots on 1 & 2 outside rounds.

1545 Engr bag off complete

1555 Item #17C uncat PSC or piece etc to proceed per ops documentation.

1655 Late entry fuse change performed 1750T to 9 and WBRF gang now in warm standby 1650 - Orlando

1705 starting glove changes on station 1 and stations 2 right and left hands

1745 RCTs pausing work due to operations having problems with glove dispenser

1800 Glove retrapping operations ended on a flooded arm and will not be changing out station 9 due to having problems with the dispenser.

1807 Arms are back in with normal gangs.

9-17-13 FLA 1818 9-17-13 being received by CCC Terri Clemon Orlando

No further entries this page.

9-17-13 DAYSHIFT

0612 Reviewed the shift turnover checklist and assumed the dayshift SOM position John Guadagnoli

0638 Completed attending the pre-job brief conducted by the SOS (Gilbert) the safety topic was pay attention to detail and watch out for each other. Facility update was provided. The current drum has multiple POCs and the lead liner is between the poly liner and drum. Removal of the poly liner will be difficult. Station #1 and #3 places will require evaluating

0709 Completed the daily update status POD call to AREA G.

0735 Turned the WCRR SOM over to Lou Gilbert John Guadagnoli

0735 ASSUMED SOM ~~SSM~~ FOR WCRR.

1059 BAGGED OFF CURRENT CONTAINER. MUCH PROBLEMS WITH THE POLY LINER SURROUNDED BY LEAD. BAGGED ON ANOTHER PARENT.

1200 TUESDAY ROUNDUP

1208 WCRR OC CALLS IN - A WCG OPERATOR PERFORMED A SELF FRISK AND THE INSTRUMENT SOUNDED.

1215 NO ISSUES WITH CONTAMINATION ON WCG. NO GLOVE HOLES, OR OTHER CONTAMINATION FOUND. CONSIDERED FALSE ALARM.

1222 ROUND UP COMPLETE

1230 DAILY CALL IN - Gilbert, Guadagnoli And Fachinger

1251 TURN SOM DUTIES OVER TO GUADAGNOLI.

1251 Assumed the SOM ~~SSM~~ FOR WCRR 9-17-13 John Guadagnoli

1347 Communicated to Operations not to use Lock-777 on Nitrates - per the PM - until further evaluation and discussion with Project Control management. The PM will advise accordingly.

1415 Outside operators initiated a movement from the facility 50/69 to the transportainer.

1435 Core Crafts arrived to conduct Fire Sprinkler testing on facility 50-54. Upon review of package 465733, it required FOD 6 approval as a result, the work was not released, and the crafts were requested to obtain FOD6 approval to conduct work, and notify personel in the facility when testing is initiated and completed.

1450 Inside operations initiate bagging off a POC and 1 Daughter

(continued on next page)

9-17-13 DAYSHIFT (Continued)

1450 (continued) and will continue to process.

1515 Operators completed the transfer into the facility (Hi Bay) Four drums were transfered – All 55 gallon containers.

1520 Inside operators report that all Bag offs and Bag ons were completed. Operations will continue to process.

1610 Supported Craft Supervisor in discussing and evaluating Friday work packages with the RP-1 Supervisor. Currently there are 3 respirator required Jobs.

1615 inside Operators report bagging off Parent drum S855240 which generated 2 daughters and 1 POC, and bag on of Parent S855943.

1648 Bag offs were reported completed.

1650 Mode Change: 50/69 and Yard transition from Operations/Operations to Warm/Warm to initiate glove changes stations 1 and station 3

1705 ~~1745~~ 9-17-13 Inside Operators initiate glove changes

1745 RCTs pause glove changes due to the expander not working properly.

1813 Operators reported the expander was going concave vs convex. Operators successfully changed out Station 3 Right and Left.
– The SOS obtained a new expander to try – Station 1 will require changing out – both L+R gloves, then the SOM can go back to operations mode.

1816 Reviewed shift turnover checklist with oncoming SOM.

1820 SECURED the SOM position, relieved by R. Artell 9-17-13.

No further Entries this Page
9-17-13

9/17/13 WCRR SOS COG Book

0500 Assuming SOS Position [illegible]

0615 Conducted shift brief with operator discussed weather changes. Also discussed that night shift had problems removing Lead from percents operators will try to remove IF not Percents will be bagged off with Lead Inside.

~~9-17-13~~

0645 Concluded shift brief

0714 Operators Entering 50-69 to operate

0808 Bagging off 1 Daughter And 2 POCs

0853 Bag off complete

1029 Bagging off 1 Daughter Bagging on 5855240

1058 Bag on/off complete

1130 Moved In to 50-69

1149 Move In Complete Late Entry Issued work due to Potential Contamination on operators Glove Full body Frisk no contamination smear were NDA @ 1175 [illegible]

1202 RCT supervision requesting more surveys be done.

1211 Per RCT supervisor All smears NDA.

1229 Operator Exiting For lunch

1310 Operator reentered

1415 starting movement from 50-69 to transportainers.

1453 Bagging off 1 POC And 1 Daughter And continuing.

1524 Bag on/off complete

1526 Move out complete

1547 Started Rounds.

1615 Bagging on 5855243 And bagging off

1650 Mode change Complete WCRR F In warm for Glove Changes.

1705 started Glove Changes on station 1 And 3 both hands.

1745 Pausing work on Glove Changes due to expanders

1801 operators notified of Elevated cam And will not change station I

1807 Cam back to normal

RIA. 1815 Relieved by Chrysler Mullins

no Further entries

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0112
Examination Date:	9/20/2013
Waste Container ID:	68381
Video/Audio Recorded Media Number:	LA-RTR2-13-0112 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 147.5 kg Tare Wt.: 33.4 kg Net Wt.: 114.1 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: 68381

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Utility knife

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):	4.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	103.4
Soils (S):	
Total WMP Weight:	114.1

CCP Radiography Data Sheet

Waste Container ID: 68381

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		9/20/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68381	Count Sequence Number:	23635
Operator:	D3PW2DK1\operator		
Assay Start:	9/23/2013 3:01:08 PM		
Description 1:	1LANDA1846		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 114.0 kg	Net:	114.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.690 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23635	Batch Number:	1LANDA1846
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:	68381	Analysis Date:	9/23/2013

Net Weight	114000.0 g		
Pu mass	9.43E+000	+-	2.36E+000 g
TRU Alpha Activity	4.97E+000	+-	2.33E+000 Ci
TRU Activity Concentration	4.36E+004	+-	2.04E+004 nCi/g
Pu-239 Equivalent Activity	5.00E+000	+-	2.33E+000 Ci
Pu-239 FGE	8.90E+000	+-	2.21E+000 g
Decay heat	1.64E-001	+-	7.73E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	9.18E-002	6.47E-005	1.19E-005	1.74E-006
PU238	8.63E-004	1.48E-002	3.70E-003	3.39E-005
PU239	8.84E+000	5.48E-001	1.37E-001	1.26E-003
PU240	5.83E-001	1.32E-001	3.32E-002	3.04E-004
AM241	1.25E+000	4.28E+000	2.32E+000	7.40E-002
PU241	1.20E-002	1.23E+000	3.09E-001	2.83E-003
PU242	1.89E-003	7.46E-006	1.87E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.58E-007
U233	<LLD	<LLD	0.00E+000	6.34E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.89E-006
U238	<LLD	<LLD	0.00E+000	1.40E-005
AM243	1.29E-003	2.58E-004	4.79E-005	8.82E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 9/24/13

ITR: [illegible] Date: 9-24-13

Automated Independent Technical Review

Count Sequence Number: 23635
Batch Number: 1LANDA1846
Counter ID: MCS HENC #1
Container ID: 68381
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 9/23/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53,54
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chamberlin Date: 9-24-13

Waste Container ID: **68381**

BDR Number: **LA13FG12107**

Sampling Date: **10/23/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	387.81	
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\131023C\
Data File : 68381.D
Acq On : 23 Oct 2013 12:56 pm (#1); 23 Oct 2013 12:55 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 23 13:05:15 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	7184352	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	5353540	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	110623	387.81	ppmv	100

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

CCP Radiography Data Sheet

5855240

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0112
Examination Date:	9/20/2013
Waste Container ID:	68385
Video/Audio Recorded Media Number:	LA-RTR2-13-0112 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 148.0 kg Tare Wt.: 33.4 kg Net Wt.: 114.6 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 68385

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	
AM:	
OM:	Scrap lead
OI:	
C:	Leather gloves
R:	
XPM:	
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.1
Other Inorganic Materials (OI)	
Cellulosics (C):	2.5
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	104.0
Soils (S):	
Total WMP Weight:	114.6

CCP Radiography Data Sheet

Waste Container ID: 68385

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		9/20/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68385	Count Sequence Number:	23646
Operator:	D3PW2DK1\operator		
Assay Start:	9/24/2013 2:56:14 PM		
Description 1:	1LANDA1847		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 115.0 kg	Net:	115.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.690 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23646	Batch Number:	1LANDA1847
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:	68385	Analysis Date:	9/24/2013

Net Weight	115000.0 g		
Pu mass	6.12E+001	+- 1.26E+001	g
TRU Alpha Activity	9.90E+000	+- 3.79E+000	Ci
TRU Activity Concentration	8.61E+004	+- 3.29E+004	nCi/g
Pu-239 Equivalent Activity	1.00E+001	+- 3.79E+000	Ci
Pu-239 FGE	5.76E+001	+- 1.18E+001	g
Decay heat	3.20E-001	+- 1.26E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	8.52E-002	6.01E-005	1.10E-005	2.83E-006
PU238	5.60E-003	9.58E-002	1.98E-002	3.17E-005
PU239	5.73E+001	3.55E+000	7.34E-001	1.18E-003
PU240	3.78E+000	8.59E-001	1.77E-001	2.85E-004
AM241	1.57E+000	5.39E+000	3.71E+000	1.20E-001
PU241	7.77E-002	8.01E+000	1.65E+000	2.65E-003
PU242	1.23E-002	4.84E-005	1.00E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.70E-007
U233	<LLD	<LLD	0.00E+000	6.27E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.67E-006
U238	<LLD	<LLD	0.00E+000	1.90E-005
AM243	1.12E-003	2.24E-004	4.16E-005	8.28E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 9/25/13

ITR: D. R. [illegible] Date: 9.25.13

Automated Independent Technical Review

Count Sequence Number: 23646 Batch Number: 1LANDA1847
Counter ID: MCS HENC #1
Container ID: 68385
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/24/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53,54
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chamberlin Date: 9-25-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68385**

BDR Number: **LA13FG2106**

Sampling Date: **10/24/2013**

5855240

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	107.72	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131024c\
Data File : 68385.D
Acq On : 24 Oct 2013 2:00 pm (#1); 24-Oct-13, 13:59:37 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 24 14:08:25 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	3.562	96	5360340	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.868	117	4144782	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.621	GC1	810m	107.72	ppmv	

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

S855240

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0112
Examination Date:	9/20/2013
Waste Container ID:	68391
Video/Audio Recorded Media Number:	LA-RTR2-13-0112 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 153.5 kg Tare Wt.: 145.1 kg Net Wt.: 8.4 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:	30 %

CCP Radiography Data Sheet

Waste Container ID: 68391

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; 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):	0.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	7.9
Soils (S):	
Total WMP Weight:	8.4

CCP Radiography Data Sheet

Waste Container ID: 68391

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		9/20/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68391	Count Sequence Number:	23630
Operator:	D3PW2DK1\operator		
Assay Start:	9/23/2013 10:59:42 AM		
Description 1:	1LANDA1846		
Description 2:	POC - GW = 153.5 kg		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 8.4 kg	Net:	8.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.637 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:	23630	Batch Number:	1LANDA1846
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:	68391	Analysis Date:	9/23/2013

Net Weight	8400.0 g		
Pu mass	5.73E-001	+- 1.45E-001	g
TRU Alpha Activity	1.60E-001	+- 2.95E-002	Ci
TRU Activity Concentration	1.90E+004	+- 3.51E+003	nCi/g
Pu-239 Equivalent Activity	1.61E-001	+- 2.95E-002	Ci
Pu-239 FGE	5.39E-001	+- 1.36E-001	g
Decay heat	5.23E-003	+- 9.75E-004	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.65E-003	2.58E-006	4.84E-007	5.36E-007
PU238	5.24E-005	8.96E-004	2.28E-004	6.85E-004
PU239	5.36E-001	3.33E-002	8.45E-003	2.54E-002
PU240	3.54E-002	8.03E-003	2.04E-003	6.15E-003
AM241	3.43E-002	1.18E-001	2.82E-002	1.21E-002
PU241	7.27E-004	7.49E-002	1.90E-002	5.73E-002
PU242	1.15E-004	4.53E-007	1.15E-007	0.00E+000
SR90	2.90E-009	4.01E-007	1.24E-007	0.00E+000
CS137	4.61E-009	4.01E-007	1.24E-007	1.62E-007
U233	<LLD	<LLD	0.00E+000	1.12E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.41E-007
U238	<LLD	<LLD	0.00E+000	4.70E-006
CM243	1.63E-007	7.96E-006	1.65E-006	2.46E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 9/24/13

ITR: [illegible] Date: 9-24-13

Automated Independent Technical Review

Count Sequence Number: 23630
Batch Number: 1LANDA1846
Counter ID: MCS HENC #1
Container ID: 68391
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 9/23/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53,54
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 Chamber Date: 9-24-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68391**

BDR Number: **LA13FG2113**

Sampling Date: **11/5/2013**

5855240

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	438.65	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
624-91-9	Methyl Nitrite	32.65
79-20-9	Methyl Acetate	33.68
N/A	N/A	N/A
N/A	N/A	N/A
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\131105C\
Data File : 68391.D
Acq On : 5 Nov 2013 3:22 pm (#1); 05-Nov-13, 15:21:40 (#2)
Operator : SA
Sample :
Misc : POC THROUGH FILTER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 05 15:30:07 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.552	96	4465060	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.855	117	3415418	177.50	ppmv	0.00
Target Compounds						Qvalue
4) Methanol	0.873	31	156500	438.65	ppmv	100

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

VOCGAS.M Wed Nov 06 12:36:46 2013

S855290

S855290

Container Pr 747399

File Options Reports Help

S855290

747399	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

S855290

S855290
- LA00000068526 – EMPTY
- LA00000068539
- LA00000068537

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99	%			

Working Copy
Date: 10-23-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S855290

6.2[4] Date Processed: 10-23-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Frederick Archuleta / [signature] / 1228826 / 10-23-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S855290

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 428.0 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 428.0 lb

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

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A ~~SC / / /~~ JC 10-23-13
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.: S855290

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68539	68537		
10.1[4]	Daughter Drum Filter No.	LM-357	LM-312	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10319	L-10308		A
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture	N	N		
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	A	A	N	
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			A
10.3[5][A]	Free Liquid Volume/Units	3 Gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead Shielding	Lead Shielding		
10.3[9][A]	PCB-contaminated Waste Description	N A	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%	60%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Hex Rent Gloves Plastic Shrink-wrap	Plastics		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S855290

Comments: Waste placed into daughter #68539 included absorbed liquid, kitty litter absorbent. Ph level of "9" was discovered in free liquid, was neutralized to Ph of "6". Plastic wrapping around Nitrate Salts were placed in daughter, along w/ neutralized nitrate salts. 2nd Daughter #68537 contains neutralized nitrate salts, kitty litter, Lead Shoddings

11.1[1] Performed By: Justin Lore / [signature] 1266436 / 10-23-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / CA 1240092 / 10/23/13 1702
SOS or designee (print) Signature Z # Date/Time

UET

Working Copy
Date: 10-4-13 jc

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 13

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: ~~JL-1038~~ 013
Serial No.: JL-1038
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] 204712 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

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

5. [18] 2-in. bung plug torque value: 36 ft-lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 204742 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 240016 10/23/13
Supervisor or designee (print) Signature Z # Date

Training Copy
Date 10-23-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68526

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: +/- 3% cw +/- 6% ccw

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

Performed By: Frederico Rebolledo / [signature] 1228261 10-23-13
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): 168.6 lb

Comments: N/C

8.1[1] Performed By: Justin Cyet / [signature] 1268301 10-23-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [signature] 240092 10/23/13
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 10-21-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68537

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC 1.5 - 2 PUC
Serial No.: 1-10308
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Range in ft-lb:	40 - 200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By:

Operator (print)	Signature	Z #	Date
Michael Montoya	[illegible]	191352	10/21/13
Brian Cordova	[illegible]	1237504	10/21/13

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 0190S
Serial No.: LM-312
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.: 68537

Comments: n/c

5.[35]	Performed By:	MICHAEL MONTOYA Brian Cordova Operator (print)	Signature	191252 1285594 Z #	10/21/13 10/21/13 Date
7.1[4]	Reviewed By:	Clayton Mullins Supervisor or designee (print)	Signature	240092 Z #	10/23/13 Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68537

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: Justin Cofer / [signature] / [illegible] / 10-23-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Justin Cofer / [signature] / [illegible] / 10-23-13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 65537

6.[26] Scale File ID number: C19665

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

6.[28] Drum gross weight: 2538 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: Justin Cofer (Operator (print)) [signature] (Signature) W667981 (Z #) 10-23-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) [signature] (Signature) 240096 (Z #) 10/23/13 (Date)

Date: 10-21-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68539

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2 SPVC
Serial No.: L-10319
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / [signature] / 207129 / 10-21-13
Operator (print) / Signature / Z# / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-357
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.: 68539

Comments: N/C

5.[35] Performed By: Brian Gallegos, [signature] 261179 10-21-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins, [signature] 240091 10/23/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68539

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: Justin Cofer / [signature] 126[illegible] 10-23-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Justin Cofer / [signature] [illegible] / 10-23-13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68530

6.[26] Scale File ID number: 0 mics

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

6.[28] Drum gross weight: 565 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: Justin Cofer [signature] 1264321 10/23/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [signature] 1340096 10/23/13
Supervisor or designee (print) Signature Z # Date

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

195 A
SP72

Production Control

Container ID: S855290 Container Type: 55-GAL Gross Weight (lbs): 443
Inner Seal #: 021437 Filter Prefix: LAVC Filter Serial #: 03245
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0746
Total PE-Ci Activity: 5.60E+00 Equivalent Combustible PE-Ci: 2.10E+00 AM-241 PE-Ci: 6.02E-01
Total Fissile Gram Equivalents: 52.9 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/12/2007 Comment: Impenetrable Obj,
Certified RTR Comment: None
Prohibited Items: ☒ Sealed > 4 Liters ☒ Liquid ☒ Pressurized Container ☑ Impenetrable Item ☒ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) / Susan J. Ramsey (Signature) / 100681 (Z Number) / 12/20/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 383# Generator info shows 14 items of nitrate salts; weights range from 2-33#. No RTR BDR. Nitrate salts typically packaged in plastic bags; undocumented liquids +/or other debris may be present. RTR PS shows impenetrable object(s). No chemicals identified; nitrate salts carry waste codes for chromium, lead, + mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 1/18/13 (Date)

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE and Kitty litter Ratio

Performed By: Gilb (TRU Remediation Operations (Print)) / [signature] (Signature) / 149235 (Z Number) / 6/19/13 (Date)
Jose Jerez / Jose Jerez / 221452 / 6-20-13
145 Review - Jolly Small and CSP, may contain Pb, Hg + Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021437

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	9MX2-10NW1		11.730	NITRATE SALTS		1.78	52	1/13	G468	
2	9MX3-13NE1		6.550	NITRATE SALTS		2.36	52	1/13	G468	
3	9MX3-13NW1		6.180	NITRATE SALTS		2.25	52	1/13	G468	
4	9DS2-20NE1		5.850	NITRATE SALTS		2.21	52	1/13	G468	
5	9LR4-15NW1		6.700	NITRATE SALTS		2.27	54	1/13	G468	
6	9UOX216NE1		4.840	NITRATE SALTS		0.72	53	1/13	G468	
7	9OX3-11NE1		7.830	NITRATE SALTS		25.72	53	1/13	G468	
8	9UOX114NE1		1.150	NITRATE SALTS		11.97	53	1/13	G468	
9	9LR7-21NW1			NITRATE SALTS		1.18	52	1/13	G468	CANNOT READ
10	9LR3-24NW1			NITRATE SALTS			52	1/13	G468	CANNOT READ
11	9OX5-23NW1		14.830	NITRATE SALTS		3.84	52	1/13	G468	
12	9LR8-26NE1		7.730	NITRATE SALTS		1.05	54	1/13	G468	
13	9LR4-27NE1		6.750	NITRATE SALTS		0.41	54	1/13	G468	
14	9LR8-26NW1		8.810	NITRATE SALTS		0.51	54	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 201.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	13.62	45.14
53	38.41	13.82
54	4.24	29.99
Totals	56.27	88.95

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])	S855290					
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])	2072.34 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] 227975
CCP (Print) Z#

Reviewed By: [illegible] 238546
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 : S855290.D
Acq On : 21 May 2013 3:19 pm (#1); 21-May-13, 15:18:51 (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL DRUM THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 21 15:27:52 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	3924386	201.25	ppmv	-0.04
15) Chlorobenzene-d5	5.868	117	3370722	177.00	ppmv	-0.03
Target Compounds						Qvalue
1) Hydrogen	1.601	GC1	14729m	2072.34	ppmv	

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

vocgas.m Tue May 21 15:27:58 2013

10-23-13

0600 Assuming WCRF operations center. - JColeman
0615 Pre-job being conducted by SOS.
0616 Late entry at 0610, outside rounds were started. (JC)
0624 Beginning inside rounds.
0635 Pre-job concluded.
0649 Item #63 is OOS, okay to proceed per CSE documentation.
0708 Late entry at 0705, inside rounds complete. (JC)
0725 Both rounds reviewed by SOS.
0726 Late entry at 0705, outside rounds complete. (JC)
0733 Mode change completed. We are now in operations
0741 in WCRRF yard and 50-69.
JC 10-23-13 0734 Bagging on drum #8818255
0744 Initiating a drum movement from transportainer to 50-69.
0753 Bag on complete.
0755 Drum movement into 50-69 complete.
0756 Being relieved by CCO, Claiona Velarde. - JColeman
0759 Assuming WCRRF operations center - CVelarde
0830 Starting movement out of 50-69.
0851 movement out of 50-69 is complete.
0910 Bagging off 2 daughters, Bagging on 3855677.
0940 Bag on, Bag off complete.
1107 Bagging off 1 daughter, Bagging on another.
1117 Bag on, Bag off complete.
1145 Bagging off, bagging on 3855290
1210 Bag on, Bag 10-23-13 Bag off complete.
1333 Bagging off 1 daughter, Bagging on another.
1340 Starting movement out of 50-69.
1400 Bag on, Bag off is complete. movement out of 50-69 is complete.
1435 Bagging off, Bagging on 3854614.
1458 Bag on, Bag off complete starting movement into 50-69
1536 movement into 50-69 completed
1655 Starting outside rounds.
1702 Starting inside rounds.
- continued on next pg - CVelarde

10-23-13

0600 Assumed the WCRR SOM position. John Gundegard.
0632 Completed the pre-job brief conducted by the SOS (Clayton)
The safety topic was bullying and safety of LADDERS
There are no transfers scheduled in or out. Roles and responsibilities were assigned. Attitude topic was discussed by the SOM.
0705 Completed the call in to AREA 6 - to update POD - scheduled activities.
0725 The SOS signed off the rounds after reviewing. SOM reviewed and signed off.
0733 Mode Change: WCRR Yard and 50/69 Facility transition from WARM/WARM to Operations/Operations.
Approval to perform procedural work is authorized by the SOM.
0741 Inside Operations report initiating bag-on of Parent drum 5818255
0753 Bag on was noted completed.
0758 Notification was received from the OM that 30 gallon lid restraints will require FED approval prior to use. New restraints are being procured and will be issued after certification.
0903 Operators report bagging off 2 daughters and bagging on Parent 5855677
0940 Bag on and bag off was reported completed. Ops continue to process
1003 Craft supervisor requested review of slings, schackles and lift devices to evaluate to ensure none expire in October. Notification was made to the SOS.
1145 Operators initiate bag off and bag on of Parent 5855290
1210 Bagoff was noted completed. Rotation of personnel through lunch conducted.
1215 Completed the noon call in, with SOM, OM, providing facility update.
1333 Bagging off 1 daughter, bagging on another - continue Operations
1310 Outside movement from 50/69 to transportation initiated
1400 Bag On - Bag off complete and movement out of 50-69 complete
1435 Bagging off, Bagging on 5854646
1458 Bag off and Bag on completed, observing outside operators move LLW with RCT support to obtain RAD Survey for eventual transfer,
1650 Completed observing LLW surveys and placing containers back into the area.
1810 All bagoffs were completed and the WCG is in a safe configuration
1820 Mode Change: WCRR Yard and 50/69 transition from Operations/Operations to WARM/WARM
1825 Secured the SOM position John Gundegard

No further entries this page
PAM

10/23/13 WCRR SOS Log Book

0600 Assuming SOS position. CA

0615 Starting Pre-Job discussed ladder safety and anti-bullying, being respectful of others. Also ~~keep~~ (cm 11-23-13) keeping a positive attitude while at work and out of work.

0635 Pre-Job complete.

0725 Signed off on the rounds.

0733 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0741 Bagging on 5818255.

0744 Starting drum movement into 50-69.

0753 Bag on complete.

0755 ~~0756~~ Movement in complete.

0830 ~~0756~~ (cm 10-23-13) Starting movement out of 50-69.

0902 Bagging off 2 daughters, bagging on 5855677

0940 Bag off/on complete.

1055 Bagging off 1st daughter, bagging on a 2nd.

1117 Bag off/on complete.

1145 Bagging off 2nd daughter, bagging on 5855290

1210 Bag off/on complete.

1333 Bagging off 1st daughter, bagging on a 2nd.

1340 Starting movement out of 50-69.

1400 Bag off/on complete. Also move out complete.

1435 Bagging off 2nd daughter, bagging on 5895616.

1458 Bag off/on complete. Also starting movement into 50-69.

1536 Move in complete.

1633 Bagging off first daughter, bagging on a 2nd.

1644 Bag off/on complete.

1743 Bagging off 2nd daughter to complete processing.

1802 Bag off complete

1810 Signed off on the rounds.

1820 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.

1825 Securing SOS position for the day. CA

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68537
Video/Audio Recorded Media Number:	LA-RTR2-13-0120 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 129.0 kg Tare Wt.: 33.4 kg Net Wt.: 95.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68537

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	88.6
Soils (S):	
Total WMP Weight:	95.6

CCP Radiography Data Sheet

Waste Container ID: 68537

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

RTR Operator:

Eric Lyles		10/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68537	Count Sequence Number:	23758
Operator:	D3PW2DK1\operator		
Assay Start:	10/30/2013 2:59:52 PM		
Description 1:	1LANDA1856		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 95.6 kg	Net:	95.6 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.920 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:	23758	Batch Number:	1LANDA1856
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:	68537	Analysis Date:	10/30/2013

Net Weight	95600.0 g		
Pu mass	6.01E+001	+-	9.37E+000 g
TRU Alpha Activity	1.53E+001	+-	7.40E+000 Ci
TRU Activity Concentration	1.60E+005	+-	7.74E+004 nCi/g
Pu-239 Equivalent Activity	1.55E+001	+-	7.40E+000 Ci
Pu-239 FGE	5.55E+001	+-	8.59E+000 g
Decay heat	5.00E-001	+-	2.46E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.53E-001	1.08E-004	2.35E-005	4.56E-006
PU238	1.43E-002	2.44E-001	3.81E-002	6.35E-005
PU239	5.51E+001	3.41E+000	5.32E-001	8.87E-004
PU240	4.85E+000	1.10E+000	1.72E-001	2.86E-004
AM241	3.08E+000	1.06E+001	7.38E+000	1.83E-001
PU241	1.24E-001	1.28E+001	2.00E+000	3.33E-003
PU242	4.21E-002	1.66E-004	2.60E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.27E-006
U233	<LLD	<LLD	0.00E+000	9.71E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.61E-006
U238	<LLD	<LLD	0.00E+000	3.92E-005
AM243	1.80E-003	3.61E-004	7.94E-005	1.28E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: ~~[illegible]~~ 10/31/13 AG 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23758 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68537
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	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-53,52,54
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: 10-31-13

Waste Container ID: **68537**

BDR Number: **LA13FG2114**

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

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68537.D
Acq On : 8 Nov 2013 10:24 am (#1); 08-Nov-13, 10:23:42 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 10:31:59 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	3.558	96	4662413	205.75 ppmv	0.04
15) Chlorobenzene-d5	5.861	117	3560465	177.50 ppmv	0.00

Target Compounds	Qvalue

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

S855290

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-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68539
Video/Audio Recorded Media Number:	LA-RTR2-13-0120 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 165.5 kg Tare Wt.: 33.4 kg Net Wt.: 132.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 68539

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
AM:	
OM:	Scrap lead
OI:	
C:	
R:	
XPM:	Plastic bags, liner lid
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	122.1
Soils (S):	
Total WMP Weight:	132.1

CCP Radiography Data Sheet

Waste Container ID: 68539

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

RTR Operator:

Eric Lyles		10/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68539	Count Sequence Number:	16657
Operator:	DCLTD231\Operator		
Assay Start:	10/30/2013 12:17:21 PM		
Description 1:	2LANDA1235		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 132.0 kg	Net:	132.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.790 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: 16657
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 68539

Batch Number: 2LANDA1235
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/30/2013

Net Weight	132000.0 g			
Pu mass	1.16E+001	+-	2.32E+000	g
TRU Alpha Activity	6.86E+000	+-	3.27E+000	Ci
TRU Activity Concentration	5.20E+004	+-	2.47E+004	nCi/g
Pu-239 Equivalent Activity	6.91E+000	+-	3.27E+000	Ci
Pu-239 FGE	1.07E+001	+-	2.31E+000	g
Decay heat	2.26E-001	+-	1.09E-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	6.46E-007
U233	<LLD	<LLD	0.00E+000	7.45E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.44E-006
NP237	1.05E-001	7.39E-005	1.47E-005	1.82E-006
PU238	2.11E-003	3.61E-002	9.40E-003	1.58E-003
U238	<LLD	<LLD	0.00E+000	2.21E-005
PU239	1.06E+001	6.56E-001	1.43E-001	2.87E-002
PU240	9.36E-001	2.12E-001	5.51E-002	9.30E-003
AM241	1.74E+000	5.96E+000	3.26E+000	6.15E-002
PU241	2.39E-002	2.46E+000	6.40E-001	1.08E-001
PU242	7.99E-003	3.16E-005	8.05E-006	0.00E+000
AM243	1.55E-003	3.10E-004	6.18E-005	1.08E-005

Errors quoted at 1.000 sigma

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

ITR: [signature] Date: 11/4/13

Automated Independent Technical Review

Count Sequence Number: 16657 Batch Number: 2LANDA1235
Counter ID: HENC #2
Container ID: 68539
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	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-53,52,54
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: 10-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68539**

BDR Number: **LA13FG2114**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	371.85	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68539.D
Acq On : 8 Nov 2013 10:48 am (#1); 08-Nov-13, 10:48:16 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 10:56:58 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	3.548	96	4566021	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.861	117	3517901	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.612	GC1	2796m	371.85 ppmv	

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

S855566

S855566

Container P 760986

File Options Reports Help

S855566

760986	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

S855566

- S855566
  - LA00000068761
    - LA00000069205 – EMPTY
    - LA00000069185 – LANL
      - LASB50043
    - LA00000069159 – WCS
      - LASB50074
    - W798260 – EMPTY

Task History

Transfer Details

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

ATTACHMENT 1
Page 1 of 4

Working Copy
1/10/14 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68761

6.2[4] Date Processed: 1-10-14

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, D005, D009

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Brandon Chavez / _____ Z0017142 / 1-10-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 6874

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): 83.1bs lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 507.4 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.: 68761

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69159			
10.1[4]	Daughter Drum Filter No.	L-10079			
10.1[4]	Daughter Drum Bag Filter No.	JL-846			
10.1[4]	Daughter Drum Purchase Order No.	501892			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP			
	Model No.	bcpvc1525pvc			
	Serial No.	L-10081			
	Date of Manufacture	5/13			
10.2[5]	POC ID No	69185			
10.2[7][B]/10.2[6]	POC Item Description	Kitty litter w/waste solids			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	RC 204742			
10.2[14]	POC Assembly Gross Weight (lb)	381.2			
10.2[15]	POC Rad. Survey Results (mrem/hr)	960.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	6 gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68761

Comments: lead, liquids, nitrate salts, & oily other / plastic

11.1[1] Performed By: Brandon Chacon / [signature] [illegible] 12-10-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Mik / [signature] [illegible] 11/12/14 1030
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET 1/10/14

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 6288366
Manufacture Date: 13

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

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

Overpack filtered vent information:

Manufacturer:
Model No.:
Serial No.: N/A
Manufacture Date:

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

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: prepared at TA-54

8.1[1] Performed By: Brandon Chase / _____ 1282702 1-10-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / _____ 1482501 1/10/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Work Order Copy
Date: 1/10/14 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68205

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 16-80
Tolerance: ± 3% ± 6%

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

Performed By: Brandon Chavez / [signature] [illegible] 1-10-14
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: 019265
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 168.2 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] [illegible] 1-10-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] [illegible] 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1/5/14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 67159

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6C PVC
Serial No.: L-10079
Manufacture Date: 09/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	08/05/14
Range:	20-44200 in-lb CS 1/8/14	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 (Operator (print)) Joe Romero (Signature) 1109704 (Z #) 1/5/14 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 0190S
Serial No.: JL-846
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.: 69159

Comments: N/C

5.[35] Performed By: Jose Romero (Operator (print)) [signature] (Signature) 1109021 (Z#) 1-8-14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 1192351 (Z#) 1/12/14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69159

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

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 16-80 ft-lb
Tolerance (+/-): ± 3%cw ±6%cw

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

Performed By: Brandon Chacz / [signature] / 2497221 / 1-10-14
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☐ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Range:	N/A in-lb	N/A 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.: 69159

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 456.6 lbs

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

Comments: N/C

6.[32] Performed By: Brandon Chavez / [signature] [illegible] 12-10-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149355 12/12/14
Supervisor or designee (print) Signature Z # Date

1-9-14

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68761

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): 424 lb

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: Adam Segovia [signature] 276701 1-9-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 147 51 1/10/1
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] N2235 1/10/14 [illegible]
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum 195-4 SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control New container used @ 412. New ID given in WCATS B. Smyth 12/2/13

Container ID: S855566 \ 168761 Container Type: 85-GAL Gross Weight (lbs): 503

Inner Seal #: 021435 Filter Prefix: LAVC Filter Serial #: 00897

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

TWSR Comments: LEACHED SOLIDS NITRATE SALTS MST 12 A0748

Total PE-Ci Activity: 9.15E+00 Equivalent Combustible PE-Ci: 3.43E+00 AM-241 PE-Ci: 9.42E-01

Total Fissile Gram Equivalents: 92.7 Total Surface Dose Rate (mrem/hr): 4

EPA Code(s): [redacted] D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/11/2007 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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 11/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts
Net Wt: 380#, Generator info shows 12 items of nitrate salts, with weights ranging from 8-43#. No RTR BDR. RTR PS shows impenetrable item(s). Nitrate salts typically packaged in plastic bags; other debris &/or undocumented liquids often present. Applicable waste codes are chromium, lead, & mercury. Repack w/ admixture is required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 11/7/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Proper PPE And Kitty Litter Pads

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Do not push or press on waste with hands. Use hexarmour gloves during processing.

Performed By: Gilbert Martinez / [signature] / 149235 / 12/6/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez [signature] 221452 12/6/13

HS REVIEW: AR 200362 11.27.12 NOTES: D007 = Chromium
D008 = LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 021435

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	10OX1-2NW1		12.460	NITRATE SALTS		4.12	53	1/13	G468	
2	10OX2-5NW1		8.500	NITRATE SALTS		1.83	54	1/13	G468	
3	10LR2-3NE1		8.140	NITRATE SALTS		5.61	52	1/13	G468	
4	10LR3-6NW1		3.850	NITRATE SALTS		2.07	56	1/13	G468	
5	10OSI-7NW1		19.370	NITRATE SALTS		38.35	52	1/13	G468	
6	10OX3-8NW1		11.180	NITRATE SALTS		6.58	54	1/13	G468	
7	10OX4-10NW1		5.000	NITRATE SALTS		0.575	54	1/13	G468	
8	10OX4-10NE1		10.000	NITRATE SALTS		1.39	54	1/13	G468	
9	10LR411NW1		7.800	NITRATE SALTS		1.47	53	1/13	G468	
10	10OS212NE1		11.000	NITRATE SALTS		11.	52	1/13	G468	
11	10DS212NW1		18.500	NITRATE SALTS		28.3	52	1/13	G468	
12	10DS212NE2		5.200	NITRATE SALTS		2.23	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	85.49	62.21
53	5.59	20.26
54	10.375	34.68
56	2.07	3.85
Totals	103.53	121.00

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/18/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[redacted]	1236973	11-26-11
	/	/	/

Container No. (7.[1]):	S8555166	S8556033	S8212164
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene			
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone			
1-Butanol			
Methanol	31.04		
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	31.04	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]):	S8555566	S8555633	S821264
Hydrogen Reading (ppm) (7.[10]):	2295.14 ppm	Ø ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	31.04 ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

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

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

☑ No deficiencies

11.1[7][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT
- Hydrogen – less than or equal to 32,000 ppm
- VOC – less than or equal to 7,000 ppm

11.1[7][B]/ Reviewed By: Kenny Romero Kenny Romero 117886 1.26.11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110118c\
Data File : S855566.D
Acq On : 18 Jan 2011 12:51 pm (#1); 18 Jan 2011 12:50 pm (#2)
Operator : GR
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM FROM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 18 13:00:03 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	4707646	209.00	ppm	0.00
15) Chlorobenzene-d5	5.933	117	3864536	184.00	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.346	GC1	581170m	2295.14	ppm	
4) Methanol	0.788	31	24296	31.04	ppm	100

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

Vocgas.m Tue Jan 18 13:00:10 2011

1-10-14
0600 ASSUMMING OPERATIONS CENTER HSMITH
0615 STARTING PRE-JOB BRIEFING
0630 PREJOB BRIEFING CONCLUDED
0640 STARTING OUTSIDE ROUNDS
0645 STARTING INSIDE ROUNDS
0658 ITEM #63 INSIDE ROUNDS OOS, POD IN PLACE, PERMISSION GRANTED TO PROCEED
0706 OUTSIDE ROUNDS COMPLETED
0710 INSIDE ROUNDS COMPLETED
0719 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SDS.
0729 MODE CHANGE INCREASE TO OPERATIONS IN WCRR YARD AND TA 50-69
0729 LATE ENTRY: OPERATORS IN TO PROCESS AT 0700, HS
0805 BAGGING ON S852588
0817 BAG ON COMPLETED
1000 BAGGING OFF BAGGING ON S844215
1023 BAGGING ON COMPLETED
1059 STARTING SHIPMENT INTO TA50-194/75,
1126 OPERATORS NOTIFIED ~~OPERATORS~~ 1/10/14 HS OPS CENTER OF BROKE LED LINED GLASS ON GLOVEBOX STATION 2
1220 OPERATORS EXIT FOR LUNCH
1346 BEING RELIEVED BY OCO CLARISA VELARDE, HSMITH
1351 Assuming WCRR Operations Center - Clarisa
1355 late entry vehicle access gate. Have been restored shipment into WCRR complete 1358 CV.
1435 Begin, Bag off complete
1440 movement into 50-69 being performed
1500 movement into 50-69 complete. ~~Begin Bag on Bag off complete~~
1513 Starting inside rounds
1537 Item 63 is OOS POD in place, okay to proceed per OSE documentation
1543 Inside rounds complete, starting movement out of 50-69
1615 Movement out of 50-69 complete.
1619 Bagging off, Bagging on W8741
1647 Bag on, Bag off complete.
Continue on next page

1-10-14 - Continued from previous page CPelardo

1648 Rounds signed off by SDS

1745 Bagging off last drum, will be installing port covers.

1808 Bag off complete.

1821 Note change to ~~operational~~ warm stand by TASD 1-9 and WCRRF yard

1-6-14 18x Early day WCRRF operations center secure - CPelardo

HM

[illegible]

1/10/14 WCRR SOM

0600 Reviewed Shift Turnover Checklist and assumed the WCRR SOM position.

0603 Bldg 50-69 inside temp @ 70°F as noted on HVA-001 display in Ops Center.

0634 Pre-job brief conducted by SOS (G. Martinez) concluded ES-214 safety topic was proper use of PPE - eyewear in particular. Discussed current inventory of drums scheduled to be received today - backfill drums on spill pallets inside 50-69 and use of shielding stands for heavy SP-57 drums. Noted that a couple of operators having wounds

0711 Completed daily call in to TA 54 SOM for WCRR PAD activities

0729 Completed Mode Change. WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations

0735 Operators adjusted thermostat in 50-69 to 68°F.

0817 Completed bag on of drum # 5852588.

1023 Completed all bag offs for drum 5852588 (1 daughter total), bagged on drum # 5844215

1435 All bag off completed for drum # 5844215 (1 daughter and 1 POC total), bagged on # 68754.

1500 Completed a move in of 4 drums from transportainers to 50-69. All drums are SP 72.

1647 Completed all bag offs for parent # 68754 (1 daughter total), bagged on drum # 68761

1808 Completed all bag offs for parent # 68761 (1 daughter, 1 POC total) Port cover in place.

1821 Completed Mode Change WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1830 Secured the SOM position

No further entries this page
RAG

PROJECT NAME WERR SFS LOGBook NOTEBOOK NO.

1/10/14

0600 Assuming SFS Position at 116 M.6

0605 Conducted shift Brief used over Iphone inside SCGF also used over EP-WERR-FC-DOP-1192, R.0

0610 Completed shift brief

0719 Sighted all Facade and outside Rounds

0729 Made Change Complete WERR In Operations Mode Late entry Operator In to process at 0700 hrs

0803 Bagging on S852.568

0817 Bag on Complete

1000 Bagging off for 3544215

1085 Bag on Complete

1095 Starting shipment In Room 6

1125 Operators initial at broken bed lined Blue on station 2

1210 Operator exiting for Lunch

1236 Shipment Complete

1330 Operator Returning operation

1412 bagging off for 68754

1455 Bag unload Complete

1440 Moving into building 2069

1500 Move In Complete

1525 Starting Rounds

1543 Starting Move out at SCGF

1605 Move out complete

1619 Bagging off for 68761

1642 Bag on left complete

1646 Reviewed Inside and outside Rounds

1745 mapping at last drum of Day

1755 bagging off complete

1801 Made change Complete WERR In ~~operat~~ Gen Mofid operation

1/10/2018 Securing SFS Position end of shift

HA

No further entries on this page

Best Available Copy

SIGNATURE DATE

READ AND UNDERSTOOD DATE

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0005
Examination Date:	1/15/2014
Waste Container ID:	69159
Video/Audio Recorded Media Number:	LA-RTR2-14-0005 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.: 206.5 kg Tare Wt.: 33.4 kg Net Wt.: 173.1 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: 69159

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	144.1
Soils (S):	
Total WMP Weight:	173.1

CCP Radiography Data Sheet

Waste Container ID: 69159

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]	1/15/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69159	Count Sequence Number:	1311
Operator:	CLREMO67292\User		
Assay Start:	2/10/2014 11:43:34 AM		
Description 1:	4LANDA0049		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, FAR		
Matrix Type:	S3000		
Container Type:	55 Gal Drum		
Weight:	Net: 173.0 kg	Net:	173.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.880 kg /l		

System Configuration

Counter:	MILCC		
Efficiency Description:	208 Drum Far 1_01_13		
Segments:	Number: 2	Offset:	0
Count Type:	Item Assay		
Collimator/Geometry Setting:	Far - 2		

Errors quoted at 1.000 sigma

********** Radioassay Data Sheet **********

Engine Version: TMU Gamma 1.4

Count Sequence Number:	1311	Batch Number:	4LANDA0049
Assay Instrument:	MILCC	Location:	LANL TA-54
Analysis Method:	CCP-TP-076 v 0	Software Version:	NDA 2000 V.4.0
Item ID:	69159	Analysis Date:	2/10/2014

Net Weight	173000.0 g		
Pu mass	9.97E+001	+-	3.08E+001 g
TRU Alpha Activity	2.54E+001	+-	6.60E+000 Ci
TRU Activity Concentration	1.47E+005	+-	3.81E+004 nCi/g
Pu-239 Equivalent Activity	2.60E+001	+-	6.60E+000 Ci
Pu-239 FGE	9.75E+001	+-	3.07E+001 g
Decay heat	8.30E-001	+-	2.18E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NA22	4.63E-010	2.89E-006	9.29E-007	7.40E-007
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.50E-006
U233	<LLD	<LLD	0.00E+000	1.42E-002
U234	9.03E-002	5.62E-004	1.81E-004	0.00E+000
U235	6.45E+000	1.39E-005	4.49E-006	3.58E-006
NP237	2.94E-001	2.07E-004	6.58E-005	3.70E-006
PU238	1.59E-002	2.71E-001	9.56E-002	2.93E-003
U238	<LLD	<LLD	0.00E+000	4.88E-005
PU239	9.24E+001	5.73E+000	1.90E+000	6.19E-002
PU240	6.91E+000	1.57E+000	5.67E-001	1.70E-002
AM241	5.20E+000	1.78E+001	6.29E+000	5.86E-002
PU241	2.92E-001	3.01E+001	1.07E+001	3.26E-001
PU242	5.05E-002	2.00E-004	6.98E-005	0.00E+000
AM243	1.54E-003	3.08E-004	9.78E-005	1.38E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 2-12-14

ITR: Maria [illegible] Date: 2.13.14

Automated Independent Technical Review

Count Sequence Number: 1311
Batch Number: 4LANDA0049
Counter ID: MILCC
Container ID: 69159
Waste Matrix Code: S3000
Count Type:
Sequence Type:
Assay Date: 2/10/2014

Comments	Disposition
Data Combiner Analysis No Multi-Modal Results Combination TMU results available for reporting purposes.	OK
Data Combiner Analysis No Multi-Modal Results Combination TMU results available for reporting purposes.	OK
MGA Analysis Expert review is recommended; the following validity tests failed: Normalized fit value (1.25) is greater than allowed (1.25). Fit value (4.99) is greater than allowed (2.50). Am separation time (85.2 years) is greater than allowed (50.0). Note: The measured and declared isotopics are inconsistent.	Isotopic analysis failed. AK Isotopics applied. The AK information utilized was provided by S. Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53,54,56.
Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 2/12/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69159**

BDR Number: **LA14FG2022**

Sampling Date: **2/19/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	581.98	
74-82-8	Methane	142.14	U
67-56-1	Methanol	66.35	
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\140219c\
Data File : 69159.D
Acq On : 19 Feb 2014 12:48 pm (#1); 19-Feb-14, 12:48:01 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 19 12:56:54 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.565	96	3169717	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.868	117	2485532	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.621	GC1	4376m	581.98	ppmv	
4) Methanol	0.870	31	16805	66.35	ppmv	100

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

14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-14-0005
Examination Date:	1/15/2014
Waste Container ID:	69185
Video/Audio Recorded Media Number:	LA-RTR2-14-0005 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.: 172.5 kg Tare Wt.: 145.1 kg Net Wt.: 27.4 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:	85 %

CCP Radiography Data Sheet

Waste Container ID: 69185

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):	25.4
Soils (S):	
Total WMP Weight:	27.4

CCP Radiography Data Sheet

Waste Container ID: 69185

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	1/15/2014
Print Name	Signature	Date

S855566

NDA 2000 Assay Report

Item Information

Item ID:	69185	Count Sequence Number:	24160
Operator:	D3PW2DK1\operator		
Assay Start:	1/21/2014 1:58:08 PM		
Description 1:	1LANDA1894		
Description 2:	POC 172.5		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 27.4 kg	Net:	27.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.733 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: 24160
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69185

Batch Number: 1LANDA1894
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/21/2014

Net Weight	27400.0 g		
Pu mass	5.31E+000	+-	2.41E+000 g
TRU Alpha Activity	1.84E+000	+-	1.00E+000 Ci
TRU Activity Concentration	6.71E+004	+-	3.67E+004 nCi/g
Pu-239 Equivalent Activity	1.86E+000	+-	1.00E+000 Ci
Pu-239 FGE	4.97E+000	+-	2.40E+000 g
Decay heat	6.04E-002	+-	3.33E-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	4.06E-007
U233	<LLD	<LLD	0.00E+000	3.17E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	9.63E-007
NP237	2.54E-002	1.79E-005	3.44E-006	1.64E-006
PU238	7.76E-004	1.33E-002	6.63E-003	7.21E-004
U238	<LLD	<LLD	0.00E+000	9.17E-006
PU239	4.93E+000	3.06E-001	1.49E-001	1.66E-002
PU240	3.68E-001	8.36E-002	4.22E-002	4.54E-003
AM241	4.19E-001	1.44E+000	9.93E-001	9.61E-002
PU241	8.76E-003	9.02E-001	4.53E-001	4.90E-002
PU242	2.71E-003	1.07E-005	5.35E-006	0.00E+000
CM243	6.36E-007	3.12E-005	6.51E-006	7.00E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·22·14

ITR: _____ Date: 1·23·14

Automated Independent Technical Review

Count Sequence Number: 24160 Batch Number: 1LANDA1894
Counter ID: MCS HENC #1
Container ID: 69185
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/21/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
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-52,54, 53,56.
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: 1-22-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69185**

BDR Number: **LA14FG2011**

Sampling Date: **1/30/2014**

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\140130c\
Data File : 69185.D
Acq On : 30 Jan 2014 3:15 pm (#1); 30-Jan-14, 15:14:34 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 30 15:22:59 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	3.558	96	3180621	205.75 ppmv	0.04
15) Chlorobenzene-d5	5.861	117	2543290	177.50 ppmv	0.00

Target Compounds	Qvalue

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

S855677

S855677

Container Pr 47046

File Options Reports Help

S855677

747046	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

S855677

S855677
- LA00000068556
- LA00000068544
- LA00000068528 – EMPTY

Task History

Transfer Details

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

Working Copy
Date: 10-23-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5855677

6.2[4] Date Processed: 10-23-13

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

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

4.1[6][B] Parent Waste Container RCRA Designations: D001, D008, D009

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Brian Gallegos / Bri Gallegos / 267129 10-23-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 5855677	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	421.0 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	421.0 lb
6.2[7]	(S) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[17][D]	Drum lift hinge pin retaining clip replaced.	N/A / / Initials Z# Date
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	N/A / / / EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5835677

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68556	68544	N	
10.1[4]	Daughter Drum Filter No.	LM-361	LM-356		
10.1[4]	Daughter Drum Bag Filter No.	L-11507	L-6786	A	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		A	V	A
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	N			
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	4 GALLONS	2 LITERS		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N A	N A	N	A
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	70%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER	KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5855677

Comments: ROOM TRASH, PLASTICS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 1267129 / 10-23-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / [signature] / 1240092 / 10/23/13 1656
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-4-13 JL

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 13

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	± 4%cw ± 6%ccw	± 3%cw ± 6%ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1030
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] 124742 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/A

8.1[1] Performed By: Brandon Chavez / [signature] 124742 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 240092 / 10/23/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-23-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68528

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-06-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / Bri Holley / 267129 10-23-13
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): 165.6 lb

Comments: N/c

8.1[1] Performed By: BRIAN GALLEGOS / Bri Holley / 267129 ~~10-23-14~~ 10-23-13 BG 10-23-14
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Clayton Mullins / CM / 240094 10/23/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-21-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68344

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2SPK
Serial No.: L-6786
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / B. Gallegos 467129 10-21-13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NJCFIL
Model No.: 0190S
Serial No.: LH-356
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 74 lbs

5.[34][E] Drum ID No.: 68544

Comments: N/c

5.[35] Performed By: BRIAN GALLEGOS / Bri Gallegos / 267179 10-21-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / CM / 1240092 10/23/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 10-23-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68544

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

M&TE No.: 037448
Cal. Expiration Date: 3-06-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / Bi Hoang / 267129 10-23-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☐ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

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

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68544

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 2946 lbs

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

Comments: N/A

6.[32] Performed By: [illegible] / [signature] 1278[illegible] [illegible]
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 1240094 10/23/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-11-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68556

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2PVC
Serial No.: L-11507
Manufacture Date: 6/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

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

Performed By: MICHAEL MONTOYA [signature] 191352 10/21/13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: LM-361
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.: 68556

Comments:

5.[35] Performed By: MICHAEL MONTOYA / [signature] / 191352 / 10/21/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240096 / 10/23/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 10-23-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68556

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

M&TE No.: 037418
Cal. Expiration Date: 3-06-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / B. Gallegos / 1267129 / 10-23-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

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

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / / /
Operator (print) / Signature / Z # / Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68556

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 357.0 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: [illegible] / [signature] 1228524 [illegible]
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 1240096 10/23/13
Supervisor or designee (print) Signature Z # Date

Imported 3P78

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S855677 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 435.9285
Total PE-Ci Activity: 5.23E+00 Equivalent Combustible PE-Ci: 1.96E+00
Total Fissile Gram Equivalents: 5.41E+01 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 ~4 gallons of liquid throughout drum and @ the bottom of drum
Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~265 lbs. and generator data shows 15 items of nitrate salts with weights ranging from ~10—30 lbs.

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

IHS Representative

Potential IHS Safety Risks: May contain lead, mercury, chromium
4 gal of free liquid

Performed By: Tiffany Smallwood (IHS Representative (Print)) | Signature | 244659 (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)) | Valerie Rhodes (Signature) | 112601 (Z#) | 8/5/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE and Kitty Litter Ratio

Performed By: Gilbert Martin (TRU Operations (Print)) | Signature | 149235 (Z#) | 8/12/13 (Date)

Operations Manager or designee

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

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

Noncertified TRU Waste Drum Item Information

DrumID: 021413

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	9LR9-28NE1		5.630	NITRATE SALTS		0.64	53	1/13	G468
2	9OX6-29NW1		12.310	NITRATE SALTS		1.36	53	1/13	G468
3	9OX7-31NW1		6.740	NITRATE SALTS		1.08	52	1/13	G468
4	9OX8-32NE1		9.880	NITRATE SALTS		3.16	52	1/13	G468
5	9RR2-34NE1		6.200	NITRATE SALTS		3.57	52	1/13	G468
6	9RR2-34NW1		6.600	NITRATE SALTS		4.56	52	1/13	G468
7	9LR10-33NW1		9.600	NITRATE SALTS		2.92	53	1/13	G468
8	9LR11-36NW1		5.820	NITRATE SALTS		1.72	53	1/13	G468
9	9LR11-36NE1		5.430	NITRATE SALTS		1.31	53	1/13	G468
10	9LR11-36NW2		6.610	NITRATE SALTS		0.96	53	1/13	G468
11	9OX935NE1		10.210	NITRATE SALTS		22.46	52	1/13	G468
12	9OX1037NE1		13.860	NITRATE SALTS		2.88	53	1/13	G468
13	9LR1238NW1		6.530	NITRATE SALTS		4.47	53	1/13	G468
14	9OX1139NE1		8.740	NITRATE SALTS		1.43	54	1/13	G468
15	9MX4-40NE1		6.480	NITRATE SALTS		5.83	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 197.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	40.66	46.11
53	16.26	65.79
54	1.43	8.74
Totals	58.35	120.64

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])	S855677					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	472					
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])	14966 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: Gabe Romero (CCP (Print)), 236973 (Z #)

Reviewed By: Rick Jagielski (CCP (Print)), 266088 (Z #)

Comments:

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

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

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), Susan Ramsey (Signature), 100681 (Z #), 5/28/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S855677.D
Acq On : 28 May 2013 1:10 pm (#1); 28-May-13, 13:10:11 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NucFil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 28 13:19:01 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	3.513	96	3756047	201.25	ppmv	-0.06
15) Chlorobenzene-d5	5.848	117	3232493	177.00	ppmv	0.05
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	10637	1496.61	ppmv	100

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

vocgas.m Tue May 28 13:19:37 2013

10-23-13

0600 Assuming WCRR operations center. - JColeman

0615 Pre-job being conducted by SOS.

0616 Late entry at 0610, outside rounds were started. (JC)

0624 Beginning inside rounds.

0635 Pre-job concluded.

0649 Item #63 is OOS, okay to proceed per CSE documentation.

0708 Late entry at 0705, inside rounds complete. (JC)

0725 Both rounds reviewed by SOS.

0726 Late entry at 0705, outside rounds complete. (JC)

0733 Mode change completed. We are now in operations

0741 in WCRRF yard and 50-69.

JC 10-23-13 ~~0734~~ Bagging on drum #818255

0744 Initiating a drum movement from transportainer to 50-69.

0753 Bag on complete.

0755 Drum movement into 50-69 complete.

0756 Being relieved by CCO, Clarissa Velarde. - JColeman

0759 Assuming WCRRF operations center. - CVelarde

0830 Starting movement out of 50-69.

0851 movement out of 50-69 is complete.

0910 Bagging off 2 daughters, Bagging on 3855677

0940 Bag on, Bag off complete

1107 Bagging off 1 daughter, Bagging on another

1117 Bag on, Bag off complete

1145 Bagging off, Bagging on 3855270

1210 Bag on, Bag off complete

1333 Bagging off 1 daughter, Bagging on another

1340 Starting movement out of 50-69.

1400 Bag on, Bag off is complete movement out of 50-69 is complete

1435 Bagging off, Bagging on 3854616

1458 Bag on, Bag off complete starting movement into 50-69

1536 movement into 50-69 complete

1655 Starting outside rounds

1762 Starting inside rounds.

- continued on next pg - CVelarde

10-23-13 - Continued from previous page Orlando
1722 Completed outside rounds.
1730 Item #43 is OOS, POD in place okay to proceed per documentation.
1740 Late entry at 1633 bagging off 1 daughter, Bagging on 1 daughter. Orlando
1743 Bagging off last drum of the day.
1802 Bag off complete
1810 Rounds signed off by SOS
1820 Mode change performed TA50-69 and WCRRF now in warm stand by
23-01-830 End of day WCRRF Operations entry is complete

No further entries this page.

.9

.49

0-23 13

0600 Assumed the WCRR SOM Position, John Headlagnek

0632 Completed the pre-job brief conducted by the SOS (Clayton)
The safety topic was bullying and safety of LADDERS
There are no transfers scheduled in or out. Roles and responsibilities were assigned. Attitude topic was discussed by the SOM.

0705 Completed the call in to AREA 6 to update POD - scheduled activities.

0725 The SOS signed off the rounds after reviewing. SOM reviewed and signed off.

0733 Made Changes WCRR Yard and DP&S Facility transition from
CAREM/LARM to Operations/Operations.
Approval to perform procedural work is authorized by the SOM.

0741 Inside Operators report initiating bag-on of Parent diesel SE8255

0743 Bag-on was noted completed.

0758 Notification was received from the CM that 30 gallon lid restraints will require FED approval prior to use. New restraints are being procured and will be issued after certification.

0803 Operators report bagging off 2 daughters and bagging on
Parent SE855677

0940 Bag on and bag off was reported completed. Ops continue to process

1003 Unit supervisor requested review of slings, scheduling and lift devices to evaluate to ensure none expire in October, notification was made to the SOS.

1145 Operators initiate bag off and bag on of Parent SE855260

1210 Bagoff was noted completed. Rotation of personnel through lunch conducted

1215 Completed the meal and in, with SOM, OM, providing facility update.

1333 Bagging off 1 daughter, bagging on another - continue operations

1340 Outside movement from SE/6A to transportation initiated

1400 Bag on - Bag off complete and movement out of SE-6A complete

1435 Bagging off, Bagging on SE5460

1450 Bag off and Bag on completed, observing outside operators move one
with RAT support to obtain RAD Survey for eventual transfers

1450 Completed observing RAD surveys and placing containers back into the area.

1810 All bagoffs were completed and the area is in a safe configuration

1820 Made Changes WCRR Yard and DP&S transition from
Operations/Operations to CAREM/LARM

1825 Secured the SOM position John Headlagnek

No further entries this page

10/23/13 WCRR SOS Log Book

0600 Assuming SOS position. CA

0615 Starting Pre-Job discussed ladder safety and anti-bullying, being respectful of others. Also ~~trip~~ cm 10-23-13 keeping a positive attitude while at work and out of work.

0635 Pre-Job complete.

0725 Signed off on the rounds.

0733 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0741 Bagging on 5818255.

0744 Starting drum movement into 50-69.

0753 Bag on complete.

0755 ~~0756~~ Movement in complete.

0830 cm 10-23-13 ~~0756~~ cm 10-23-13 Starting movement out of 50-69.

0902 Bagging off 2 daughters, bagging on 5855677

0940 Bag off/on complete.

1055 Bagging off 1st daughter, bagging on a 2nd.

1117 Bag off/on complete.

1145 Bagging off 2nd daughter, bagging on 5855290

1210 Bag off/on complete.

1333 Bagging off 1st daughter, bagging on a 2nd.

1340 Starting movement out of 50-69.

1400 Bag off/on complete. Also move out complete.

1435 Bagging off 2nd daughter, bagging on 5845616.

1458 Bag off/on complete. Also starting movement into 50-69.

1536 Move in complete.

1633 Bagging off first daughter, bagging on a 2nd.

1644 Bag off/on complete.

1743 Bagging off 2nd daughter to complete processing.

1802 Bag off complete

1810 Signed off on the rounds.

1820 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.

1825 Securing SOS position for the day. CA

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68544
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 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.: 133.5 kg Tare Wt.: 33.4 kg Net Wt.: 100.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 68544

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	88.1
Soils (S):	
Total WMP Weight:	100.1

CCP Radiography Data Sheet

Waste Container ID: 68544

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	[signature]	10/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68544	Count Sequence Number:	23744
Operator:	D3PW2DK1\operator		
Assay Start:	10/29/2013 1:37:14 PM		
Description 1:	1LANDA1855		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 100.0 kg	Net:	100.0 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.740 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23744	Batch Number:	1LANDA1855
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:	68544	Analysis Date:	10/29/2013

Net Weight	100000.0 g		
Pu mass	1.98E+001	+- 6.70E+000	g
TRU Alpha Activity	4.40E+000	+- 1.65E+000	Ci
TRU Activity Concentration	4.40E+004	+- 1.65E+004	nCi/g
Pu-239 Equivalent Activity	4.46E+000	+- 1.65E+000	Ci
Pu-239 FGE	1.85E+001	+- 6.68E+000	g
Decay heat	1.43E-001	+- 5.47E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.04E-007
U233	<LLD	<LLD	0.00E+000	4.78E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.28E-006
NP237	5.89E-002	4.16E-005	7.97E-006	2.18E-006
PU238	1.81E-003	3.09E-002	1.20E-002	8.84E-004
U238	<LLD	<LLD	0.00E+000	1.79E-005
PU239	1.84E+001	1.14E+000	4.14E-001	3.26E-002
PU240	1.35E+000	3.06E-001	1.19E-001	8.76E-003
AM241	8.53E-001	2.93E+000	1.60E+000	4.38E-002
PU241	2.96E-002	3.05E+000	1.19E+000	8.70E-002
PU242	7.73E-003	3.05E-005	1.19E-005	0.00E+000
AM243	9.30E-004	1.86E-004	3.60E-005	6.34E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 10-31-13

Automated Independent Technical Review

Count Sequence Number: 23744 Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68544
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/29/2013

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-52,53,54
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 Chamlin Date: 10-30-13

S855677

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68544**

BDR Number: **LA13FG2114**

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

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68544.D
Acq On : 8 Nov 2013 1:20 pm (#1); 08-Nov-13, 13:19:48 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 13:28:05 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	3.548	96	4481455	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.855	117	3497560	177.50 ppmv	0.00

Target Compounds	Qvalue

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

S855677

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68556
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 162.0 kg Tare Wt.: 33.4 kg Net Wt.: 128.6 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: 68556

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	114.6
Soils (S):	
Total WMP Weight:	128.6

CCP Radiography Data Sheet

Waste Container ID: 68556

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		10/28/2013
Print Name	Signature	Date

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

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

Item ID:              68556              Count Sequence Number:  23747
Operator:             D3PW2DK1\operator
Assay Start:          10/29/2013  3:50:41 PM
Description 1:        1LANDA1855
Description 2:        N/A
Location:             LANL TA-54
Comment:              AK-6
Matrix Type:          Homo Sol. S3000
Container Type:       55 gallon drum
Weight:               Net:       129.0   kg        Net:   129.0 kg
Container:            Volume:    208.0   l        Full:    90.0 %
Density:                           0.690 kg /l

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

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

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23747	Batch Number:	1LANDA1855
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:	68556	Analysis Date:	10/29/2013

Net Weight	129000.0 g		
Pu mass	8.77E+001	+- 1.57E+001	g
TRU Alpha Activity	1.15E+001	+- 2.86E+000	Ci
TRU Activity Concentration	8.94E+004	+- 2.22E+004	nCi/g
Pu-239 Equivalent Activity	1.18E+001	+- 2.86E+000	Ci
Pu-239 FGE	8.20E+001	+- 1.46E+001	g
Decay heat	3.70E-001	+- 9.44E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.10E-001	7.75E-005	1.42E-005	3.88E-006
PU238	8.02E-003	1.37E-001	2.46E-002	3.06E-005
PU239	8.15E+001	5.05E+000	9.06E-001	1.13E-003
PU240	5.98E+000	1.36E+000	2.43E-001	3.03E-004
AM241	1.45E+000	4.98E+000	2.70E+000	8.84E-002
PU241	1.31E-001	1.35E+001	2.42E+000	3.02E-003
PU242	3.42E-002	1.35E-004	2.42E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.83E-007
U233	<LLD	<LLD	0.00E+000	8.39E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.40E-006
U238	<LLD	<LLD	0.00E+000	1.70E-005
AM243	2.13E-003	4.27E-004	7.93E-005	1.13E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 10-31-13

Automated Independent Technical Review

Count Sequence Number: 23747 Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68556
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/29/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53,54
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 Chambers Date: 10-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68556**

BDR Number: **LA13FG2114**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	338.60	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68556.D
Acq On : 8 Nov 2013 1:55 pm (#1); 08-Nov-13, 13:54:39 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 14:03:54 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	3.571	96	4499309	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.874	117	3483764	177.50 ppmv	0.01
Target Compounds					Qvalue
1) Hydrogen	1.604	GC1	2546m	338.60 ppmv	

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

S855793

S855793

Container Profile 747479

File Options Reports Help

S855793

747479	TBD-TRU	T-TTRU-TEMP	Active	Decommission

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey

Genealogy

- S855793
  - S855793
    - LA00000068725
      - LA00000069120 — Empty
      - LA00000068685 — LANL
        - LASB50446
      - LA00000068660 — WIPP
    - W798033 — Empty

Working Copy
Date: ~~12-3-13~~ 12-4-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68725

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

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Edward Matthew / [signature] 1239911 / 12-4-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68725

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 444.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 22.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 466.4 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.: 68725

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68660	68685		
10.1[4]	Daughter Drum Filter No.	LM-870	LM-866	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10325	L-10041		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	N/A		N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A	lead shielding		
10.3[9][A]	PCB-contaminated Waste Description		N/A		
10.3[9][B]	PCB Item ID No.				N/A
10.3[10]	Remaining Waste Description	See comments	See comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	60%	85%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter glove bag gloves	Kitty litter Plastic Stub outs		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68725

Comments: Room trash, kitty litter, nitrate salts, 2 galons PH-0 liquid & glass neutralized, stub out bags

11.1[1] Performed By: Frederick Nehlsen / [signature] 1228826 / 12-4-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez / [signature] 1149235 / 12/6/13 0903
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 12-3-13

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 501563
Lot No.: 02383366-1
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: N
Model No.:
Serial No.: N
Manufacture Date:

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

5. [11] Performed By: / / /
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: Drum not prepped at WCRRF

8.1[1] Performed By: Federico Rebolete / 12788261 12-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / 114935 12/6/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-3-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69120

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: Federico Arlabeda / [signature] 1228026 / 12-4-13
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): 167.0 lb

Comments: NC

8.1[1] Performed By: Federico Arlabeda / [signature] 1228026 / 12-4-13
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 114928 / 12/6/13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 11/12/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 685660

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.: 60PLC 15-2 SAL
Serial No.: L-10325
Manufacture Date: 6-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	108216	036245
Cal. Expiration Date:	12-18-13	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: [signature] [signature] 1278806 11-12-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM 870
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.: 68660

Comments: N/C

5.[35] Performed By: Frederick Rechebta [signature] 1225XX1 11-12-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 1LF035 12/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68660

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% rdg +/- 6% rdg

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

Performed By: Frederick Archuleta / [signature] / 1228826 / 12-4-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:	N/A	N/A
Range:	N/A in-lb	N/A ft-lb
Tolerance (+/-):	N/A	N/A

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO ☐ N/A

Performed By: Frederick Archuleta / [signature] / 1228826 / 12-4-13
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.: 686060

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 255.0 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: Frederico Aguilar [illegible] 12268261 12-4-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [illegible] 149235 12/6/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-18-13w

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68685

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-1.5-2.5PVC
Serial No.: 1-10041
Manufacture Date: 05/13

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

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

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

Performed By: Andrew H. Romero (Operator (print)) | Andrew H Romero (Signature) | 187006 (Z #) | 11/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NucFil
Model No.: 019DS
Serial No.: LM-866
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.: 68685

Comments: N/C

5.[35] Performed By: Andrew H. Romero (Operator (print)) [signature] (Signature) 187004 (Z #) 11/15/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 149235 (Z #) 12/6/13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 608685

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

M&TE No.: 638369
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: Federico Arbeloa / [signature] / 1228886 / 12-4-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	N/A in-lb	N/A ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68685

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 392.0 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: Frederick [illegible] / [signature] 2288826 / 12-4-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149287 12/6/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-3-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68725

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): 444.6

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

Comments: N/A

8.1[1] Performed By: Frederico Acklola / [signature] 1228826 / 12-3-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] M.J. 149235 12/6/13
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: Gilbert Martinez / [signature] 149235 12/6/13 0910
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum Parent Drum 5972 1954

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Contents re-labeled & given new number. B Aguilla 11/12/13

Container ID: S855793 / 168725 (Parent / Daughter) Container Type: 85-GAL Gross Weight (lbs): 513

Inner Seal #: 021419 Filter Prefix: LAVC Filter Serial #: 00299

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

TWSR Comments: LEACHED SOLIDS NITRATE SALTS MST 12 A0749

Total PE-Ci Activity: 3.44E+00 Equivalent Combustible PE-Ci: 1.29E+00 AM-241 PE-Ci: 3.02E-01

Total Fissile Gram Equivalents: 36.2 Total Surface Dose Rate (mrem/hr): 3

EPA Code(s): [redacted], D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/10/2007 Comment: Impenetrable Obj,

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack

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

TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 11/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts
Net Wt: 453#. Generator info shows 14 items of nitrate salts; weights range from 10-33#. Nitrate salts are typically packaged in plastic bags; undocumented liquids &/or debris may be present. No RTR BDR. RTR PS shows impenetrable item(s). No chemicals identified. Applicable waste codes are for chromium, lead, + mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 112669 / 11/23/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Proper PPE And Kitty Litter Ratio

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments:

Performed By: Gilbert Martinez / [signature] / 119235 / 11/13/12
TRU Remediation Operations (Print) Signature Z Number Date

Darrel L. Blain / [signature] / 218069 / 11/14/13
Jose Jerez / [signature] / 221452 / 11/14/13

IHS REVIEW: IHS 206362 11.27.12 NOTES: D007 = Chromium
D008 = LEAD

Document No: EP-DIV-AP-0107 WCRRF Page 1 of 1
Thursday, September 13, 2012

IHS. Review. [illegible] CSP, may contain Pb. [illegible]

Noncertified TRU Waste Drum Item Information

DrumID: 021419

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	10LALR1W		5.940	NITRATE SALTS		3.58	53	1/13	G468	
2	10LR5W1		4.800	NITRATE SALTS		0.52	53	1/13	G468	
3	10LR5E1		9.710	NITRATE SALTS		1.73	53	1/13	G468	
4	10LR16W1		8.600	NITRATE SALTS		2.39	[illegible]	1/13	G468	
5	10LR16E1		7.400	NITRATE SALTS		0.64	[illegible]	1/13	G468	
6	10LR17W1		7.000	NITRATE SALTS		0.77	53	1/13	G468	
7	10LR17E1		7.200	NITRATE SALTS		0.35	53	1/13	G468	
8	10RR18E1		9.680	NITRATE SALTS		4.34	52	1/13	G468	
9	100X11W1-1		9.960	NITRATE SALTS		8.19	52	1/13	G468	
10	100X11W1-2	TW 75	10.970	NITRATE SALTS		9.02	52	1/13	G468	
11	10LR18E1		[illegible]	NITRATE SALTS		1.17	52	1/13	G468	
12	10LR18W1		12.930	NITRATE SALTS		2.26	52	1/13	G468	
13	100X21E1		9.600	NITRATE SALTS		1.32	52	1/13	G468	
14	100X21W1		15.100	NITRATE SALTS		2.42	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 204.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	31.11	94.34
53	7.59	42.05
Totals	38.7	TW 136.39

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 Ramos	[signature]	1286973	1-12-11
	/	/	/

Container No. (7.[1]):	S855793	S824555	
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55gal	
Current Filter Vent No. (7.[1]):	72	72	
New Filter Vent No.: (7.[8][A]):	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	

No Further Tanks
GR 1/12/11

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	S855793	S824555	
Hydrogen Reading (ppm) (7.[10]):	26290 ppm	18264 ppm	ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][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	

No Filtered Data 1.13.11

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198460 / 1-10-11
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

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

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

11.1[7][B]/ Reviewed By: Henry Romero Henry Romero 111886 / 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 : S855793.D
Acq On : 11 Jan 2011 4:31 pm (#1); 11-Jan-11, 16:30:29 (#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 16:41:48 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	3.639	96	9126585	205.50	ppmv	0.00
15) Chlorobenzene-d5	5.961	117	7843561	182.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.660	GC1	2057m	262.90	ppmv	

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

vocgas.m Tue Jan 11 16:42:05 2011

12-4-13 Continued from previous page: JColeman

0506 Item #63 is COS, okay to proceed per CSE documentation.

0507 Inside rounds complete.

0525 Drum movement out of 50169 complete.

0526 Bagging off 1 daughter, bagging on 68725.

0555 Bag off/on complete. operators have identified several gloves that need to be changed out.

0608 Both rounds reviewed by SOS.

12-4-13 0613 Being relieved by OCO, Howard Smith - JColeman

No further entries this page.

12/4/13

0613 ASSUMING OPERATIONS CENTER H SMITH

0625 STARTING PRE-JOB BRIEFING

0700 PRE JOB CONCLUDED

0723 OPERATORS ENTER FACILITY TO INSPECT GLOVEBOX GLOVES FOR GLOVE CHANGES

0815 OPERATORS NOTIFIED OPERATIONS CENTER GLOVEBOX GLOVE STATION #7, WILL NEED TO BE CHANGED.

0821 MODE CHANGE DECREASE TO WARM STANDBY IN TA50-69 AND WCRRF YARD.

0832 STARTING GLOVEBOX GLOVE CHANGES AT STATION #7 BOTH LEFT & RIGHT GLOVES

0858 COMPLETED GLOVE CHANGES

0904 MODE CHANGE INCREASE WCRR YARD AND TA50-69 NOW IN OPERATIONS MODE

0920 OPERATORS ADVISE OPS CENTER ON POST JOB SURVEYS RCT FOUND 10 DPM ALPHA AT STATION #7, WIPE DOWN AND WILL RE-EVALUATE. 12/4/13

0934 OPERATORS ADVISED OPERATION CENTER SMEARS FROM GLOVE SURVEYS WERE NDA

0936 BAGGING OFF, BAGGING ON DAUGHTER

0953 BAG OFF COMPLETE AND CONTINUING TO PROCESS

1005 EWMD DIVISION BEP MEETING BEGINNING

1046 BAGGING OFF, BAGGING S861976

1116 OPERATORS NOTIFIED OPS CENTER OF LEFT HAND CONTAMINATED GLOVE WHILE PERFORMING BAG CUT DURING BAG OFF, PPE GLOVE REMOVED AND RCT'S STATED LEVEL BELOW RWP LIMITS AND OPERATORS CONTINUED WITH OPERATION

1144 OPERATORS NOTIFIED OPERATIONS CENTER OF 15 GALLONS ON FLUIDS IN S861976, AND DRUM STILL CONTAINS FROZEN MATTER

1154 BAGGING OFF, BAGGING ON 1 DAUGHTER

1155 LATE ENTRY: EWMD DIVISION BEP BRIEFING CONCLUDED 1145 HS

1210 BAG ON BAG OFF COMPLETED

CONTINUED ON NEXT PAGE H SMITH

12-4-13 CONTINUED FROM PREVIOUS PAGE H SMITH
1250 OPERATORS PUT WASTE IN SAFE CONFIGURATION TO PAUSE WORK FOR MEETING AND LUNCH
1510 WORK SCHEDULE ~~BS~~ HS 12/4/13 BRIEFING CONCLUDED
1620 OPERATORS DENESTING AND BAGGING ON.
1700 STARTING OUTSIDE ROUNDS
1720 BAG ON BAG OFF COMPLETED, BAG ON 68734
1730 OUTSIDE ROUNDS COMPLETED
1731 BEGIN MOVEMENT OUT OF TA50-69 INTO TA50-194/75
1731 STARTED INSIDE ROUNDS
1749 ITEM #63 INSIDE ROUNDS OOS, POD IN PLACE PERMISSION TO PROCEED PER COE DOCUMENTATION
1755 MOVEMENT INTO TA50-194/75 IS COMPLETED.
1756 INSIDE ROUNDS COMPLETE
12-4-13 1800 BEING RELIEVED BY TERRI COLEMAN H SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

12/3/13 Night Shift

1810 Reviewed shift turnover checklist and assumed WCRR SOM position

1817 Approved and posted the Night Shift operations watch bill.

1835 Pre job brief conducted by SOS was completed. Discussed drums inside 50-69 staged for processing w/ pinholes identified from day shift. We will seal the holes w/ sealant during denesting. Priority is to process remaining SP-3 drums inside 50-69 and tomorrow day shift will start processing SP-72 drums. IH discussed reporting of first aid injuries no matter how minor or location at work - whether it occured in a controlled area or not.

1945 Completed briefing of all operators, RCT's and management on new BEP being rolled out next Monday 12/9/13

2100 Completed briefing of SOM, SOS and DCO's for BEP implementation of AOP's and actions.

2219 Completed movement of 2 drums into 50-69 for processing.

12/4/13 0008 Operators completed denesting 2 drums - a third they noticed w/ a split drum ring and severe dent (drum # 68811) and closed back up. All bag offs were completed for parent # 5824128 (1 daughter, 1 POC total) and drum # 68801 was bagged on.

0010 Operators breaking for lunch.

0120 Resuming operations.

0258 Operators completed all bag offs for parent # 68801 (1 daughter total) Bagged on drum # 68808.

0304 Operators encountered a sealed 30 gal container.

0311 Ops Center received report of an operator w/ a contaminated bootie. RP-1 is conducting surveys of area. Operations on hold.

0318 RP-1 reported that all surveys of area are NDA. Operator was able to pass thru HFM twice w/out alarming. Direct survey of bootie did not show any contamination - all other operators were surveyed w/ no contamination. Resuming operations.

0335 WCG receptacles are deenergized - drum has been breached - beginning 30 minute wait.

0405 30 minute wait time elapsed. Resuming operations

0525 Completed move out of 8 drums.

0555 Completed bag offs of parent # 68808 (1 daughter total) and bagged on drum # 68725 (SP-72).

Continued on next page →

12/3/13 Night Shift continued

12/4/13 0612 Reviewed round sheets, TSR tracking worksheet and verified status board updated.

0617 Relieved by J. Goodegnoli as SOM.

No further entries this page

12-4-13 DAYSHIFT

0606 Reviewed shift turnover checklist and assumed the WCRR SOM position

0638 Completed attending the pre-job brief conducted by the SOS (Clarissa). The safety topic was high wind, be careful when opening transportainer doors on morgan shed / PPE dress. During shift relief, it was reported stations 1,2,3,4, 7, and 8 gloves require changing due to wear. The PIC and RCT will inspect prior to operations commencing. There is one scheduled transfer out.

0708 Completed daily PDD call in with AREA 6 - SOM

0815 Inside operations report they will change station 7 - 2nd hand -

0821 Mode Change: Safe/Safe and yard transition from Operations/Operations to Warm/Warm

0832 The saxon radio was checked and was noted operational, no battery required.

0836 Glove change noted completed.

0904 Mode Change Safe/Safe and Yard transition from Warm/Warm to Operations/Operations

0936 Inside operation initiate bag off and bag on of 1 daughter of Parent 68725 SF-72

1010 Initiate Training in Operations Center on EWMD Division Bldg Emergency Plan Ops Center Protocol with (CD) ES trainer.

1041 Inside Operations report bagging off and bagging on Parent 5861976.

1116 Inside Operations report that the left hand / PPE glove was contaminated during bag off, RCTs removed and contained / threw away glove, levels were within RWP limits - PPE glove replaced and operations continued.

1144 Operations report 15 gallons of liquid from parent 5861976 and they observe frozen matter within the drum. It is noted as Ø.

1154 Operations are bagging off 1 daughter and bagging on another

1250 Operations place WCR in a safe configuration and exit for lunch.

1330 Operations completed meeting with ES Project Manager and reactor Safe/Safe

1620 Operations initiated denesting 2 parents and will perform bag off / bag on.

1718 The bag off and bag on is noted complete Parent drum bagged on is 68794

1731 Operations initiate movement of 4 drums.

1752 All moves were completed, WCR secured for night shift.

1809 Relieved of SOM by R. Axtell

No further Entries this page

PROJECT NAME WCRR SOS log book NOTEBOOK NO.

12/03/13

1800 ~~0600~~ 12/3/13 Assuming SOS position from Clarissa Valarde.

1815 ~~0615~~ 12/3/13 Shift Turn over with off going shift conducted

1825 ~~0625~~ 12/3/13 Pre job briefing started. Discussed planned events for the shift. Denesting, Drum movements, Bagon/off, Process Parents. Discussed hazards associated sharps, dropped drums.

1856 ~~0655~~ 12/3/13 Pre job completed.

1900 ~~0700~~ 12/3/13 Training for LTP Building Emergency Plan starts. Course # 23182

1945 ~~0745~~ 12/3/13 Training completed for all of crew now the operation Center, SOM and SOS get more training. Did not have enough people to denest or start work until training is completed.

2100 ~~0800~~ 12/3/13 Training completed.

2205 Moving drums into 50-69. 2 SP3 drums.

2219 Drum Movement completed.

2245 De Nesting 3 drums and bagging off 1 daughter and 1 POC. Operators only denested 2 drums. 1 drum had a busted Ring and was dented. Lid Placed back on and closed up. See Pictures on camera.

0008 Denesting completed. Bag off completed Bag on 68801.

0215 Begin outside rounds.

0231 Bagging off 1 daughter, Bagging on 68808

0245 Outside rounds complete.

0258 Bag off/on completed.

0304 Operators have encountered a sealed 30 gallon sealed container.

0311 Notified that operator 38 went through the hand and foot monitor after an evolution and his bootie alarmed the monitor. RCT's did a large area massilin of the floor and found of contamination. The bootie was checked and nothing was found. RCT's let operation to continue.

0335 Receptacles have been de-energized and the 30 gallon container has been breached Starting 30 minute wait

HH 0405 30 minute wait time is over. Resuming operations

0450 Drum movement out of the building 50-69.

0525 Drum movement completed out of 50-69.

0526 Bagging off 1 daughter, Bagging on 68725.

0608 Rounds signed off.

0625 Relieved by SOS Clarissa Valarde.

No further entries this page. AKB 12-4-13

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

PROJECT NAME NOTEBOOK NO.

12-4-13

0625 Assuming WCRRF SOS position.

0626 Starting Pre-job briefing

0700 Pre job concluded

0818 Glove inspection complete. will need to change out 4th 12-4-13 station 7 left and right

0821 mode change to warm on WCRRF yard and TA50-69

0832 Started glove changes.

0838 Glove changes completed.

0841 mode change performed. TA50-69 and WCRRF yard in operations.

0920 Operators inside notified ops center that prot job results showing 100 dpm alpha from station 7 glove changes. RCTs reperform 0 12-4-13 reperforming smears after wipe down.

0935 Rct resurvey of smears of station 7 are. LLDA.

0936 Bagging off 1 daughter, bagging on 1 daughter.

0953 Bag on, Bag off complete.

1000 Briefing being conducted on emergency plan operations center response Protocol.

1041 Bagging off, Bagging on 5861976

1116 Inside pic notified ops center of a hot left hand PPE glove while performing bag out. PPE glove removed and RCT's have started RWP limits not exceeded. Operators continuing with operations.

1144 Inside pic notified ops center of 15 gallons of liquid from drum 9841976 and drum still contains 30 gal.

1155 Bagging off 1 daughter, Bagging on 1 daughter.

1156 late entry Briefing completed at 1130 CD

1210 Bag on, Bag off complete.

1300 meeting with ES Ops managers

1500 meeting concluded.

1620 Starting to denest and bag off. Then bagging on 68734

HH 1738 Bagon, Bag off complete. Denesting also complete.

1721 Starting inside rounds.

1730 Completed outside rounds.

1736 Starting movement out of 50-69

1800 Completed inside rounds.

HH 1815 Being relieved by SOS Darrell Blair, - Clarvalde

no further entries 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-RTR2-13-0135
Examination Date:	12/12/2013
Waste Container ID:	68660
Video/Audio Recorded Media Number:	LA-RTR2-13-0135 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.: 116.0 kg Tare Wt.: 33.4 kg Net Wt.: 82.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 68660

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R: Leaded rubber gloves

XPM: Plastic bags, liner lid, plastic containers

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):	5.0
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	71.6
Soils (S):	
Total WMP Weight:	82.6

CCP Radiography Data Sheet

Waste Container ID: 68660

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	12/12/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68660	Count Sequence Number:	24046
Operator:	D3PW2DK1\operator		
Assay Start:	1/2/2014 4:07:48 PM		
Description 1:	1LANDA1885		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 82.2 kg	Net:	82.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.610 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24046	Batch Number:	1LANDA1885
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:	68660	Analysis Date:	1/2/2014

Net Weight	82600.0 g		
Pu mass	8.01E+000	+-	1.24E+000 g
TRU Alpha Activity	7.09E-001	+-	7.56E-002 Ci
TRU Activity Concentration	8.58E+003	+-	9.20E+002 nCi/g
Pu-239 Equivalent Activity	7.46E-001	+-	7.59E-002 Ci
Pu-239 FGE	7.86E+000	+-	1.16E+000 g
Decay heat	2.24E-002	+-	2.36E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.66E-002	2.58E-005	4.45E-006	2.00E-006
PU238	1.22E-003	2.08E-002	3.22E-003	4.96E-005
PU239	7.46E+000	4.63E-001	7.14E-002	1.10E-003
PU240	5.31E-001	1.21E-001	1.86E-002	2.87E-004
AM241	3.04E-002	1.04E-001	1.61E-002	2.48E-004
PU241	1.95E-002	2.00E+000	3.10E-001	4.77E-003
PU242	2.65E-003	1.05E-005	1.62E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.75E-007
U233	<LLD	<LLD	0.00E+000	4.42E-003
U234	7.45E-003	4.63E-005	1.29E-005	0.00E+000
U235	5.31E-001	1.15E-006	3.20E-007	1.08E-006
U238	<LLD	<LLD	0.00E+000	1.10E-005
AM243	1.71E-003	3.41E-004	5.91E-005	5.93E-006

Errors quoted at 1.000 sigma

Operator: RRBaumann Date: 1-8-14

ITR: [illegible] Date: 1-8-14

039 PA 1-8-14

Automated Independent Technical Review

Count Sequence Number: 24046 Batch Number: 1LANDA1885
Counter ID: MCS HENC #1
Container ID: 68660
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/2/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	OK
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 Expert review is recommended; the following validity tests failed: Normalized fit value (38.46) is greater than allowed (1.15). Fit value (476.0) is greater than allowed (2.50). Uncertainty in Pu240 effective (26.7%) is greater than allowed (20.0%). Pu239 weight percent is outside limits [92.5, 95.0]. Note: The measured and declared isotopics are inconsistent.	Isotopic analysis failed. AK Isotopics applied. The AK information utilized was provided by Steve, AKE, and conists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.

040

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: _____ Date: 1/7/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68660**

BDR Number: **LA14FG2002**

Sampling Date: **1/3/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	161.59	
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\140103c\
Data File : 68660.D
Acq On : 3 Jan 2014 12:17 pm (#1); 03-Jan-14, 12:17:12 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 12:26:06 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	3513652	205.75 ppmv	0.08
15) Chlorobenzene-d5	5.891	117	2786116	177.50 ppmv	0.03
Target Compounds					Qvalue
1) Hydrogen	1.618	GC1	1215m	161.59 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-13-0121
Examination Date:	12/13/2013
Waste Container ID:	68685
Video/Audio Recorded Media Number:	LA-HERTR-13-0121 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.: 177.5 kg Tare Wt.: 33.4 kg Net Wt.: 144.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68685

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.2
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	25.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	112.9
Soils (S):	
Total WMP Weight:	144.1

CCP Radiography Data Sheet

Waste Container ID: 68685

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		12/13/2013
Print Name	Signature	Date

S855793

NDA 2000 Assay Report

Item Information

Item ID:	68685	Count Sequence Number:	24027
Operator:	D3PW2DK1\operator		
Assay Start:	12/20/2013 10:21:07 AM		
Description 1:	1LANDA1884		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 144.0 kg	Net:	144.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.810 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:	24027	Batch Number:	1LANDA1884
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:	68685	Analysis Date:	12/20/2013

Net Weight	144000.0 g		
Pu mass	2.41E+001	+- 4.87E+000	g
TRU Alpha Activity	8.34E+000	+- 3.49E+000	Ci
TRU Activity Concentration	5.79E+004	+- 2.42E+004	nCi/g
Pu-239 Equivalent Activity	8.41E+000	+- 3.49E+000	Ci
Pu-239 FGE	2.19E+001	+- 4.84E+000	g
Decay heat	2.73E-001	+- 1.16E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.16E-007
U233	<LLD	<LLD	0.00E+000	8.63E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.70E-006
NP237	1.05E-001	7.42E-005	1.50E-005	3.80E-006
PU238	8.87E-003	1.52E-001	8.15E-002	4.45E-003
U238	<LLD	<LLD	0.00E+000	2.42E-005
PU239	2.17E+001	1.35E+000	3.00E-001	3.95E-002
PU240	2.27E+000	5.14E-001	1.23E-001	1.51E-002
AM241	1.84E+000	6.32E+000	3.47E+000	8.95E-002
PU241	4.43E-002	4.56E+000	1.04E+000	1.34E-001
PU242	5.28E-002	2.09E-004	7.22E-005	0.00E+000
AM243	4.17E-003	8.35E-004	1.70E-004	1.13E-005

Errors quoted at 1.000 sigma

Operator: Marie [illegible] Date: 1.2.14

ITR: [illegible] Date: 1-7-14

Automated Independent Technical Review

Count Sequence Number: 24027 Batch Number: 1LANDA1884
Counter ID: MCS HENC #1
Container ID: 68685
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/20/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
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
- 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.	
Section 4 - MGA Analysis	MGA analysis failed. FRAM results applied. FRAM results attached.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok

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

Expert Review by: Sheri Chambers Date: 1-2-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68685**

BDR Number: **LA14FG2003**

Sampling Date: **1/10/2014**

S 855 793

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	185.79	
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\140110c\
Data File : 68685.D
Acq On : 10 Jan 2014 1:01 pm (#1); 10-Jan-14, 13:01:07 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 13:09:57 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	3.555	96	3219690	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.861	117	2574317	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.615	GC1	1397m	185.79	ppmv	

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

S855943

S855943

Conta... Profile 747045

File Options Reports Help

S855943

747045	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

Genealogy

S855943

- S855943
  - LA00000068384
  - LA00000068383 EMPTY
  - LA00000068363

Task History

Transfer Details

Transfer Amo...	Transfer Unit	Item	Measured We...	Measured We...
0.01	%			

Working Copy
Date: 9-17-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S855943

6.2[4] Date Processed: 9-17-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Brandon Moore / [signature] [illegible] / 9-17-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5855943

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 474.4 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 474.4 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.: 5855943

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68384	68383		
10.1[4]	Daughter Drum Filter No.	KL-434	KL-533	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-6890	L-6781		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	4. GAL			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/10.5[4]/10.6[10]	Daughter Drum % Full (%)	75%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Glovebox gloves PLASTIC	PLASTIC		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 3855943

Comments: NITRATE SALTS, PLASTIC, lEAD SHIELDING, POLY LINER,

11.1[1] Performed By: GERALD ESPINOZA [signature] 1237720 / 9/7/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins [signature] 1240092 / 9/18/13 0552
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: 13

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: NDLFIL
Model No.: 013
Serial No.: JL-1957
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: Clayton Mullins [signature] 240092 / 9/18/13
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.: 683563

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 15 SEP 17 13 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERALD ESPINOZA [signature] 1237701
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): 1738 lb

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA [signature] 1237701 9/18/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins [signature] 1240092 9/18/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-10-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68383

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC 1.5-2 SPUC
Serial No.: L-6781
Manufacture Date: 1-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% CW ±6% CCW	±3% CW ±6% CCW

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

Performed By: Ian Mahelle (Operator (print)) [signature] (Signature) Z76701 (Z #) 9-11-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: KL 533
Manufacture Date: 11-11

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 74 lbs

5.[34][E] Drum ID No.: 68383

Comments: N/C

5.[35] Performed By: [illegible] MARQUEZ [illegible] Z96201 9-11-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [illegible] 240091 9/18/13
Supervisor or designee (print) Signature Z # Date

Working Copy

Date: 9-18-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 168383

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

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERARD ESPINOZA (Operator (print)) (Signature) 237720 (Z#) 9-18-13 (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: GERARD ESPINOZA (Operator (print)) (Signature) 237720 (Z#) 9-18-13 (Date)

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68383

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 463.0 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: GERMAN ESPINOZA (Operator (print)) (Signature) 1237720 (Z #) 9/18/13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) (Signature) 240092 (Z #) 9/18/13 (Date)

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-10-13a

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68384

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6C PVC 1.5-2 5 PVC
Serial No.: L-6890
Manufacture Date: 01/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
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: JM MARQUEZ [signature] Z#8709 7-11-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: ~~KL-434~~ KL-434
Manufacture Date: 11/11

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68384

Comments: n/c

5.[35] Performed By: Ian Mendez / [signature] / 276708 / 9-11-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240097 / 9/18/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 9-17-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68384

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

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERALD ESPINOZA [signature] 1237120 / 9-17-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA [signature] 1237120 / 9-17-13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68384

6.[26] Scale File ID number: 019005

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

6.[28] Drum gross weight: 231.4 lbs

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

Comments: N/C

6.[32] Performed By: GERMAN ESPINOZA (Operator (print)) | (Signature) | 1237724 (Z #) | 9/7/13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) | (Signature) | 240092 (Z #) | 9/18/13 (Date)

72 BL

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S855943 Container Type: 55-GAL Gross Weight (lbs): 471 3.22.12

Inner Seal #: 021422 ✓ Filter Prefix: LAVC Filter Serial #: 00496 ✓

AK Waste Stream: LA-MHD01.001 Wrong? Certified RTR BDR: LA-RTR2-12-0023

TWSR Comments: LEACHED SOLIDS MST 12 A0751

Total PE-Ci Activity: 4.57E+00 ✓ Equivalent Combustible PE-Ci: 1.71E+00 ✓ AM-241 PE-Ci: 3.71E-01 ✓

Total Fissile Gram Equivalents: 50.4 ✓ Total Surface Dose Rate (mrem/hr): 2 ✓

EPA Code(s): None

NCR RTR/NDA Comment: LANL: remediate-Prohibited Item

RTR Pre-Screen Date: 1/9/2012 Comment: Lead liner, >1% liquid, impenetrable item, Sealed container > 4L

Certified RTR Comment: Greater than 50% Homogeneous solids, Greater than 1% prohibited liquid, Impenetrable material

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☑ VE 10/31/12 ☑ PID ☐ Split ☑ Repack

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

TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: R. W. Jones / Production Control (Print) / Signature / 117434 / Z Number / 3.15.12 / Date

SUSAN S. RAMSEY / Signature / 100481 / Z Number / 10/31/12 / Date

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Waste includes scrap lead, plastic, and a homogeneous solid material. Liquid > 1% of outermost container present. No hazardous constituents identified. Netwaste weight = 659 LBS. An RWP for dose rates > 100 mR/hr may be required.

Performed By: Mark Everett / WDP Engineering (Print) / Signature / 149638 / Z Number / 4/11/12 / 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 Kevlar glove when processing

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste.

Performed By: Joe Jerez / TRU Remediation Operations (Print) / Signature / 221452 / Z Number / 11-29-12 / Date

RJBINSAUS 272995 2/15/13

IHS Review [illegible] CSP, may contain Pb, Hg, Cr.

11/5/12

Noncertified TRU Waste Drum Item Information

DrumID: 021422

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	100X31E1		23.290	NITRATE SALTS		18.42	52	9/13	G468	
2	110X1W1		13.230	NITRATE SALTS		8.26	52	9/13	G468	
3	11RR1W1		4.100	NITRATE SALTS		3.31	52	9/13	G468	
4	11LR4E1		12.420	NITRATE SALTS		4.18	52	9/13	G468	
5	11LR4E2		5.800	NITRATE SALTS		1.46	52	9/13	G468	
6	11DS5W1		4.760	NITRATE SALTS		0.952	52	9/13	G468	
7	11DS5W2		6.450	NITRATE SALTS		3.35	52	9/13	G468	
8	11LR5W1		6.150	NITRATE SALTS		1.5	52	9/13	G468	
9	11LR5E1		5.600	NITRATE SALTS		0.458	52	9/13	G468	
10	11DS7W1		10.600	NITRATE SALTS		1.14	52	9/13	G468	
11	11DS7E1		13.800	NITRATE SALTS		3.36	52	9/13	G468	
12	11DS7W2		5.900	NITRATE SALTS		0.339	52	9/13	G468	
13	TS14W1S		20.100	NITRATE SALTS		4.62	52	9/13	G468	
14	TS12LRE1		11.570	NITRATE SALTS		2.23	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 223.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	53.579	143.77
Totals	53.579	143.77

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0023
Examination Date:	02/09/2012
Waste Container ID:	S855943
Video/Audio Recorded Media Number:	LA-RTR2-12-0023 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-0307-12 NCR No.: NCR-LANL-0308-12 NCR-LANL-0309-12

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: 214.0 kg. Tare Wt: 35.1 kg. Net Wt: 178.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - ~~Vented~~ not vented PO 2/20/12
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

34
KKG 2-20-12
~~33~~

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 2 of 3

Waste Container ID: S855943

Section 3: Container Inventory and Comments (Detailed descriptions)
Scrap lead, lead shielding
Plastic bag, horsetail
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP): Rigid Liner	7.4
Others:	0.0
Total Packaging Weight:	35.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	50.0
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	126.9
Soils (S):	
Total WMP Weight:	178.9

35
KKS-2-2012
~~34~~

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 3 of 3

Waste Container ID: S855943

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 11)	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: NCR-LANL-0307-12
NCR-LANL-0308-12
NCR-LANL-0309-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		2/9/12

2/20/12

SP21

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

5.[1] Sample Date 6/17/11

5.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Mabel Simmons	[illegible]	[illegible]	7/6/11

CCP (Print)	Signature	Z #	Date

Container No. (5.[1]):	U2227	S855943	S832556
Container Type (SWB, 110/85/55-gal) (5.[1]):	55 gal.	55 gal.	55 gal.
Current Filtered Vent No. (5.[1]):	19ds	72	72
New Filtered Vent No.: (5.[8][A]):	19ds	72	72
WIPP-Approved Filtered Vent (5.[8][B]):	☒ SAT ☐ UNSAT	☒ SAT ☐ UNSAT	☒ SAT ☐ UNSAT
VOC	Value (ppm) (5.[10])		
Benzene	2.32		
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene	8.04		
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene	6.76		
o-Xylene			
Acetone			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (5.[11]):	17.12	0	0

ATTACHMENT 1
Page 2 of 2

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

Container Number (5.[1])	62227	5855943	5832556
Hydrogen Reading (ppm) (5.[10]):	0 ppm	0 ppm	0 ppm
Methane Reading (ppm) (5.[10]):	0 ppm	0 ppm	0 ppm
Total VOC Reading (ppm) (5.[11]):	17.12 ppm	0 ppm	0 ppm
Filtered Type (5.[9][F][c]/5.[9][G][a]):	19ds	72	72
WIPP Approved (SAT/UNSAT) (5.[9][F][c]/5.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (5.[9][F][a]/5.[9][G][a]):	033157	N/A	N/A
Torque Wrench Calibration Due Date (5.[9][F][a]/5.[9][G][a]):	2/10/12	N/A	N/A
Torque Wrench Tolerance (5.[9][F][a]/5.[9][G][a]):	±4%	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 (5.[9][F][a]/5.[9][G][d]) *	10 ft.lbs.	N/A	N/A

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

Comments: N/C

8.1[1] Performed By: Valerie Martinez, Valerie Martinez 123958 7/7/11
Waste Handling Operator (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).

☒ No deficiencies

8.1[7][A] **(S)** WCRRF waste container satisfies the following criteria: ☒ SAT ☐ UNSAT

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

8.1[7][B]/ 8.1[8] Reviewed By: Michael Vigil Michael Vigil 215267, 7/8/11
Waste Handling Supervisor (print) Signature Z# Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110617c\
Data File : S855943.D
Acq On : 17 Jun 2011 1:57 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM FROM UNDER DRUM LID (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 17 14:13:21 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	3.259	96	2967052	206.75 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2119753	183.50 ppm	0.00

Target Compounds Qvalue

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

Vocgas.m Fri Jun 17 14:13:27 2011

9-17-13

0600 Assuming WERRF OCD position - CRelandi

0600 Assuming WERRF OPS CENTER IN TRAINING HSMITH

0615 PRE-JOB BRIEFING CONDUCTED BY SOS

0632 PRE JOB BRIEFING CONCLUDED

0714 OPERATORS ENTER BUILDING TO BEGIN PROCESSING

0808 BAGGING OFF 1 DAUGHTER AND 2 POC'S

0815 OPERATORS NOTIFIED RCT'S STROBE IN HI-BAY NOT LIT.

0823 ~~TBE~~ 9/17/13 HS ~~CMR~~ 9/17/13 HS OPERATORS NOTIFIED OPS CENTER RED STROBE IN HI BAY IS NOW WORKING.

0833 BAG OFF COMPLETE, BAGGED OFF 1 DAUGHTER 2 POC'S

1029 BAGGING OFF 1 DAUGHTER, BAGGING ON S 855240

1058 BAGOFF, BAG ON COMPLETED

1130 STARTING MOVEMENT INTO TA50-69

1149 MOVEMENT INTO TA50-69 IS COMPLETE

1151 LATE ENTRY 1135 PAUSING WORK DUE TO POTENTIALLY CONTAMINATION ~~CAUSED BY~~ 9/17/13 HS GLOVE, OPERATOR HAD FULL BODY FRISK, NO CONTAMINATION DECTECTED HSMITH ON STATION 3 HSMITH

1201 OPERATOR ADVISED BY RCT NO CONTAMINATION, OKAY TO CONTINUE THE PROCESS. NO CONTAMINATION ON GLOVE

1202 PER RCT SUPERVISION, REQUESTING MORE SURVEYS TO BE PERFORMED

1211 PER RCT ~~SUPERVISOR~~ 9/17/13 HS SUPERVISOR FOLLOW UP SURVEYS NOA

1224 OPERATORS EXITING FOR LUNCH

1310 OPERATORS ENTERING BUILDING TO CONTINUE PROCESSING

1415 Starting movement out of 50-69 to transportation.

1453 Bagging off 1 POC and 1 Daughter then will continue processing.

1524 Bag on, Bag off is complete.

1526 movement out of 50-69 is complete.

1547 Starting inside rounds.

1601 Item #63 is CES, POD in place okay to proceed per CSE documentation.

-Continued on next page. CRelandi

9-17-13 - Continued from previous page - CKelarde

1407 Inside rounds complete.

1415 Bagging off, bagging on 3855943

1430 Starting inside 9-17-13 Outside rounds.

1450 Bag on, bag off complete

1453 Item #19 to lunch, FSR in place OK to proceed per CSE documentation.

1455 Late entry Mode change performed 1450-1459 and WERRF gard now in warm standby 1450 - CKelarde

1705 Starting glove changes on station 1 and station 3 Right and left hands

1745 RCT's pausing work due to operators having problems with glove expanding.

1801 Operators notifying operations auxiliary of a elevated rem and will not be changing out station 1 due to having problems with expanding.

1807 Cama are back in with normal range.

9-17-13 1813 9-17-13 being relieved by OCO Terri Coleman - CKelarde

No further entries this page

9-17-13

1813 Assuming WCRR operations center. JColeman

1823 Pre-job being conducted by SOS. Discussed ~~systems~~ symtoms and signs of stress and ways to reduce it.

1837 Pre-job concluded.

1918 Operators entering 5069 to perform glove inspections and glove changes.

1952 Initiating a drum movement from 5069 to a transportainer.

2020 Operators beginning glove changes on Station 1 (L)+(R), station 2 (L) gloves.

2025 Drum movement out of 5069 complete.

2124 Glove changes complete.

2129 Mode change complete. We are now in operations in WCRRF yard and 5869.

2250 Bagging off 1 daughter, bagging on another daughter.

2300 Bag off/on complete.

0008 Operators out for lunch.

0030 Beginning outside rounds.

0049 Item #19 on the rounds is unsat, okay to proceed, FSR in place.

0057 Outside rounds complete.

0127 Operators back from lunch.

0220 Bagging off 1 daughter, bagging on S844673.

0248 Bag off/on complete.

0255 Beginning inside rounds.

0309 Item #63 on the rounds is OOS, okay to proceed per CSE documentation

0320 Inside rounds complete.

0423 Bagging off 1 daughter, bagging on S841240.

0436 Both rounds reviewed by SOS.

0442 Bag off/on complete.

0540 Operator reports a leak by the scale and toolbox.

9-18-13 0600 Relieved by OO Clarissa Velarde-JColeman

JJ

No further entries this page.

9-17-13 DAYSHIFT

0612 Reviewed the shift turnover checklist and assumed the dayshift SOM position John Guadagnoli

0638 Completed attending the pre-job brief conducted by the SOS (Gilbert) The safety topic was pay attention to detail and watch out for each other. Facility update was provided. The current drum has multiple POCs and the lead liner is between the poly liner and drum. Removal of the poly liner will be difficult. Station #1 and #3 places will require evaluating

0709 Completed the daily update status POD call to AREA 6.

0735 Turned the WCRR SOM over to Lou Talbert John Guadagnoli

0735 ASSUMED SOM 9-17-13 ~~SSM~~ FOR WCRR.

1059 BAGGED OFF CURRENT CONTAINER. MUCH PROBLEMS WITH THE POLY LINER SURROUNDED BY LEAD. BAGGED ON ANOTHER PARENT.

1200 TUESDAY ROUNDUP

1208 WCRR OC CALLS IN - A WCG OPERATOR PERFORMED A SELF FRISK AND THE INSTRUMENT SOUNDED.

1215 NO ISSUES WITH CONTAMINATION ON WCG. NO GLOVE HOLES, OR OTHER CONTAMINATION FOUND. CONSIDERED FALSE ALARM.

1222 ROUND UP COMPLETE

1230 DAILY CALL IN - Talbert, Guadagnoli AND Fachetti

1251 TURN SOM DUTIES OVER TO GUADAGNOLI.

1251 Assumed the SOM 9-17-13 ~~SSM~~ FOR WCRR John Guadagnoli

1347 Communicated to Operations not to use Lock-777 on Nitrates - per the PM - until further evaluation and discussion with Project Control management. The PM will advise accordingly.

1415 Outside operators initiated a movement from the facility 50/69 to the transportainer.

1435 Core Crafts arrived to conduct Fire Sprinkler testing on facility 50-54. Upon review of package 465733, it required FOD 6 approval as a result, the work was not released, and the crafts were requested to obtain FOD6 approval to conduct work, and notify personnel in the facility when testing is initiated and completed.

1450 Inside operations initiate bagging off a POC and 1 Daughter

(continued on next page)

9-17-13 DAYSHIFT (Continued)

1450 (continued) and will continue to process.

1515 Operators completed the transfer into the facility (Hi Bay) Four drums were transfered — All 55 gallon containers.

1520 Inside operators report that all Bag offs and Bag on's were completed. Operations will continue to process.

1610 Supported Craft Supervisor in discussing and evaluating Friday work packages with the RP-1 Supervisor. Currently there are 3 respirator required Jobs.

1615 inside operators report bagging off Parent drum S855240 which generated 2 daughters and 1 POC, and bag on of Parent S855943.

1648 Bag offs were reported completed.

1650 Mode Change: 50/69 and Yard transition from Operations/Operations to Warm/Warm to initiate glove changes Stations 1 and station 3

1705 ~~1745~~ Inside Operators initiate glove changes

1745 RCTs pause glove changes due to the expander not working properly.

1813 Operators reported the expander was going concave vs convex. Operators successfully changed out Station 3 Right and Left.
— The SOS obtained a new expander to try — Station 1 will require changing out — both L+R gloves, then the SOM can go back to operations mode.

1816 Reviewed shift turnover checklist with oncoming SOM.

1820 SECURED the SOM position, relieved by R. Artell 9-17-13.

No further Entries this Page
9-17-13

9/17/13 Night Shift

1820 Reviewed Shift turnover checklist, approved and posted Night Shift Warm Standby watchbill and assumed the WCRR SOM position.

1821 Attended pre job brief conducted by SOS. Safety topic from IH was stress - causes, indications and ways to deal with it. Discussed current condition of facility - Station #1 gloves both R&L require changing, prior shift having problems w/ glove ring expander.

1945 SOS reported that other gloves in the WCG were caked w/ waste material and operators are cleaning them to determine if any other gloves will be required to be changed.

2015 Notified by Operators they are in process of changing gloves - in addition to Station #1 R&L, station #2 L will also be changed.

2025 Operators completed a movement of 4 drums from 50-69 to transporters - Inventory control reported that WCATS hand held scanner worked w/ no issues for move out.

2124 All glove changes are completed.

2129 Completed Mode change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations / Operations.

2300 Completed bagging off 1 daughter - continuing processing.

9/18/13 0006 Operators breaking for lunch.

0127 Resuming operations.

0157 Sent marked up version of 55 gal Daughter Drum prep and closure procedure to procedure writers to address labeling and weighing issues in regards to WCAT's.

0220 Bagging off another daughter to complete drum # 5855943 (2 daughters total) and bagging on 5844573.

0423 Bagged off 1 daughter and parent # 5844573. Bagged on drum # 5841240.

0538 Operators reported a small amount of rainwater leaking into facility at the floor scale and tool box areas as identified during prior rain events.

9/18/13 0600 Relieved by J. Guadagnoli as SOM

No further entries this page

HG

9/17/13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [illegible]
0615 Conducted shift brief with Operator discussed weather changes. Also discussed that night shift had problems removing Lead from percats. Operators will try to remove DE out Percats will be bagged off with Lead Inside.
[illegible] 9-17-13
0645 Concluded shift brief
0714 Operators Entering 50-69 to operate
0808 Bagging off 1 Daughter And 2 POCs
0853 Bag off complete
1029 Bagging off 1 Daughter Bagging on 5855840
1058 Bag on/off complete
1130 Moved In to 50-69
1149 Move In Complete Late Entry Reveal work due to Potential Contamination on operators Glove Full body Frisk no contamination smear were NDA @ 1125 [illegible]
1202 RCT supervision requesting more surveys be done.
1211 Per RCT Supervisor All smears NDA.
1229 Operator Exiting For lunch
1310 Operator reented
1415 starting movement from 50-69 to transportainers
1453 Bagging off 1 POC and 1 Daughter And restriving.
1524 Bag on/off complete
1526 Move out complete
1547 Started Rounds.
1615 Bagging on 5855543 And bagging off
1650 Mode change Complete WCRRF In warm for Glove Changes
1705 started Glove Changes on station 1 And 3 both hands.
1745 Pausing work on Glove Changes due to expanders
1841 Operators notified of Elevated cam And will not change station 1
1867 Cam back to normal
HA 1815 Relieved by Christian Mullins [illegible]

no Further entries on this page

9/17/13 WCRR SOS Log Book

1816 Assuming SOS position. CA
1823 Starting Pre-Job, discussed topic from IH about the signs and symptoms of stress, and the ways to reduce or manage stress.
1840 Pre-Job complete.
1952 Starting movement out of 50-69.
2010 After cleaning and inspecting glovebox glove, operators will have to chang station 2 left hand along with both gloves on station 1 as ~~reported~~ cm 9-17-13 previously notified.
2020 Beginning to change station 1 both gloves and station 2 left hand.
2025 Movement out of 50-69 complete.
2050 Notified by operators inside that glove expanders not working properly. Assembling a new expander and passing it into 50-69 to complete glove changes
2122 Glove changes complete.
2129 Mode change complete, WCRRF yard and 50-69 are now in Operations.
2250 Bagging off 1st daughter, bagging a 2nd daughter on.
2300 Bag off/on complete.
0220 Bagging off 2nd daughter, bagging on 5844573.
0248 Bag off/on complete.
0423 Bagging off 1 daughter, bagging on 5841240.
0436 Signed off on the rounds.
HA 0441 Bag off/on complete.
0610 Relieved by Gilbert Martinez on 9/18/13. CA

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0113
Examination Date:	9/24/2013
Waste Container ID:	68383
Video/Audio Recorded Media Number:	LA-RTR2-13-0113 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 210.0 kg Tare Wt.: 33.4 kg Net Wt.: 176.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 68383

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):	2.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	166.6
Soils (S):	
Total WMP Weight:	176.6

CCP Radiography Data Sheet

Waste Container ID: 68383

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

Comments: The scan of this drum was performed by in-training operator Eddie Rios under the supervision of qualified operator Thad Hasselstrom.

RTR Operator:		
Eddie Rios Thad Hasselstrom	Eddie Rios Thad Hasselstrom	9-24-13 9/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68383	Count Sequence Number:	16569
Operator:	DCLTD231\Operator		
Assay Start:	9/26/2013 10:52:48 AM		
Description 1:	2LANDA1228		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 177.0 kg	Net:	177.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.900 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: 16569
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 68383

Batch Number: 2LANDA1228
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 9/26/2013

Net Weight	177000.0 g		
Pu mass	6.19E+001	+-	1.36E+001 g
TRU Alpha Activity	1.09E+001	+-	3.60E+000 Ci
TRU Activity Concentration	6.13E+004	+-	2.04E+004 nCi/g
Pu-239 Equivalent Activity	1.10E+001	+-	3.60E+000 Ci
Pu-239 FGE	5.84E+001	+-	1.36E+001 g
Decay heat	3.52E-001	+-	1.19E-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	7.48E-007
U233	<LLD	<LLD	0.00E+000	9.61E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.18E-006
NP237	1.21E-001	8.51E-005	1.83E-005	2.46E-006
PU238	5.66E-003	9.68E-002	2.65E-002	1.05E-003
U238	<LLD	<LLD	0.00E+000	2.24E-005
PU239	5.81E+001	3.60E+000	8.43E-001	3.92E-002
PU240	3.72E+000	8.43E-001	2.31E-001	9.19E-003
AM241	1.84E+000	6.31E+000	3.50E+000	7.88E-002
PU241	7.15E-002	7.36E+000	2.01E+000	8.02E-002
PU242	1.24E-002	4.90E-005	1.34E-005	0.00E+000
AM243	3.04E-003	6.08E-004	1.31E-004	1.46E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 9·27·13

ITR: _____ Date: 9·27·13

Automated Independent Technical Review

Count Sequence Number: 16569
Batch Number: 2LANDA1228
Counter ID: HENC #2
Container ID: 68383
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 9/26/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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.	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: 9/27/13

08

Waste Container ID: **68383**

BDR Number: **LA13FG12106**

Sampling Date: **10/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	73.18	
74-82-8	Methane	9.63	U
67-56-1	Methanol	42.10	
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	0.47	U
107-06-2	1,2-Dichloroethane	0.92	U
71-36-3	1-Butanol	0.54	U
108-10-1	Methyl isobutyl ketone	3.11	U
108-88-3	Toluene	2.73	U
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131022c\
Data File : 68383.D
Acq On : 22 Oct 2013 2:00 pm (#1); 22 Oct 2013 1:59 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 22 14:12:47 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.060	96	7329710	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	5222964	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.907	GC1	20874m	73.18	ppmv	
4) Methanol	0.827	31	16307	42.10	ppmv	100

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

5855943

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0113
Examination Date:	9/24/2013
Waste Container ID:	~~68389~~ 68384 7JH 9-25-13 [illegible] 9-25-13
Video/Audio Recorded Media Number:	LA-RTR2-13-0113 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 104.5 kg Tare Wt.: 33.4 kg Net Wt.: 71.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	55 %

CCP Radiography Data Sheet

Waste Container ID: ~~68380~~ 68384 RSA 9-25-13 [illegible] 9-25-13

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware

AM:

OM:

OI:

C:

R: Leaded rubber gloves

XPM: Liner lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	63.0
Soils (S):	
Total WMP Weight:	71.1

CCP Radiography Data Sheet

Waste Container ID: ~~68389~~ 68384 TSH 9-25-13 E. Rios 9-25-13

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

Comments: The scan of this drum was performed by in-training operator Eddie Rios under the supervision of qualified operator Thad Hasselstrom.
ON THE RECORDING IT SHOWS CONTAINER NUMBER 68389 THE CORRECT CONTAINER NUMBER IS REFLECTED ON THIS ATTACHMENT TWO. THE DATA IS NOT AFFECTED. TSH 9-25-13
E. Rios 9-25-13

RTR Operator:		
Eddie Rios Thad Hasselstrom	Eddie Rios Thad Hasselstrom	9-24-13 9/24/2013
Print Name	Signature	Date
Thad Hasselstrom TSH 9-25-13 Eddie Rios	Eddie Rios Thad Hasselstrom	9-25-13 9-25-13

RTR Data Sheet.xls SCO# 1189 Ver. 2
Microsoft Excel 2003 Windows XP

NDA 2000 Assay Report

Item Information

Item ID:	68384	Count Sequence Number:	16565
Operator:	DCLTD231\Operator		
Assay Start:	9/25/2013 4:00:02 PM		
Description 1:	2LANDA1227		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 71.1 kg	Net:	71.1 kg
Container:	Volume: 208.0 l	Full:	55.0 %
Density:	0.620 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:	16565	Batch Number:	2LANDA1227
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68384	Analysis Date:	9/25/2013

Net Weight	71100.0 g		
Pu mass	3.16E+000	+-	6.03E-001 g
TRU Alpha Activity	1.53E+000	+-	2.26E-001 Ci
TRU Activity Concentration	2.15E+004	+-	3.18E+003 nCi/g
Pu-239 Equivalent Activity	1.54E+000	+-	2.26E-001 Ci
Pu-239 FGE	3.74E+000	+-	6.32E-001 g
Decay heat	5.04E-002	+-	7.50E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	6.31E-009	8.71E-007	2.29E-007	0.00E+000
CS137	1.00E-008	8.71E-007	2.29E-007	2.69E-007
U233	<LLD	<LLD	0.00E+000	3.24E-003
U234	1.66E-002	1.03E-004	2.66E-005	0.00E+000
U235	1.18E+000	2.55E-006	6.57E-007	1.72E-006
NP237	2.80E-002	1.97E-005	3.40E-006	8.28E-007
PU238	2.89E-004	4.94E-003	1.22E-003	3.43E-004
U238	<LLD	<LLD	0.00E+000	8.34E-006
PU239	2.96E+000	1.84E-001	3.72E-002	1.28E-002
PU240	1.89E-001	4.30E-002	1.06E-002	2.99E-003
AM241	3.78E-001	1.30E+000	2.23E-001	2.97E-002
PU241	3.64E-003	3.75E-001	9.28E-002	2.61E-002
PU242	6.32E-004	2.50E-006	6.17E-007	0.00E+000
AM243	9.77E-004	1.95E-004	3.38E-005	4.97E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 9-26-13

ITR: [signature] Date: 9-26-13

Automated Independent Technical Review

Count Sequence Number: 16565 Batch Number: 2LANDA1227
Counter ID: HENC #2
Container ID: 68384
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/25/2013

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

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

Expert Review by: Sheri Chamberlin Date: 9-26-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68384**

BDR Number: **LA13FG12106**

Sampling Date: **10/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	151.56	
74-82-8	Methane	9.63	U
67-56-1	Methanol	132.40	
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
79-20-9	Methyl Acetate	23.26
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131022c\
Data File : 68384.D
Acq On : 22 Oct 2013 2:16 pm (#1); 22 Oct 2013 2:15 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 22 14:35:09 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.060	96	7269134	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	5220393	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.907	GC1	43233m	151.56	ppmv	
4) Methanol	0.827	31	50853	132.40	ppmv	100

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

S860014

S860014

Container F 768445

File Options Reports Help

S860014

768445	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

S860014

- S860014
  - LA00000068735
    - LA00000069143 - EMPTY
    - LA00000069066 - LANL
      - LASB50033
    - LA00000069063 - WCS
      - LASB50107
  - W798075 - EMPTY

Task History

Transfer Details

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

Working Copy
Date: 12-14-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68735

6.2[4] Date Processed: 12-15-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

4.3[6] ($) Stationary Fire Watch has been established: ☑ N/A
(> 300 PE-Ci Equivalent Combustible) NA
(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: Frederick Rehlete / [signature] 12258826 / 12-15-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68735

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 434.4 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) 434.4 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.: 608735

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69063	69066		
10.1[4]	Daughter Drum Filter No.	JL-881	JL-867	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10136	L-11523		
10.1[4]	Daughter Drum Purchase Order No.	501892	501892		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	N/A		N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	5 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:		lead sticking		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A		
10.3[9][B]	PCB Item ID No.			N/A	
10.3[10]	Remaining Waste Description	See comments	See comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter	Kitty litter plastic stuff out bags		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68735

Comments: plastic, kitty litter, N. taste salts, 1 poly liner lid, 5 gallons ph-4 liquid also neutralized to a 7, lead shielding

11.1[1] Performed By: Frederico [illegible] 12288241 12-15-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton McHolyn 124009411 12/24/13 1512
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 12/15/13 HB

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: _____
Lot No.: _____
Manufacture Date: _____

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

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

Overpack filtered vent information:
Manufacturer: _____
Model No.: _____
Serial No.: _____
Manufacture Date: _____

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

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: Drum Not Prepped at WCRRF

8.1[1] Performed By: Frederico Arbolada / [signature] / 1278524 / 12-15-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] / 1240921 / 1/23/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 12/15/13 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 609143

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: Frederico Arbolida / [signature] 1228826 / 12-15-13
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): 174.0 lb

Comments: N/C

8.1[1] Performed By: Frederico Arbolida / [signature] 1228826 / 12-15-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [signature] 1249091 / 1/23/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 12/13/13 HJ

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69063

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC15-25PVC
Serial No.: L-10136
Manufacture Date: 6/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-2013	8-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4% cw ±6% ccw	3% cw ±6% ccw

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

Performed By: Brian Gallegos / B Dollar / 267129 12-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NJCFIL
Model No.: 019DS
Serial No.: JL-881
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): 760 lbs

5.[34][E] Drum ID No.: 69063

Comments: N/C

5.[35] Performed By: Brian Gallegos (Operator (print)) [signature] (Signature) 1241129 (Z #) 12-13-13 (Date)

7.1[4] Reviewed By: Clayton Mullen (Supervisor or designee (print)) [signature] (Signature) 1240921 (Z #) 1/23/14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69063

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: [illegible] / [signature] 1278826 / 12-15-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No..		
Cal. Expiration Date:		
Range:	in-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: [illegible] / [signature] 1278826 / 12-15-13
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.: 69063

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 350.2 lbs

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

Comments: n/a

6.[32] Performed By: [illegible] / [signature] 1220881 / 12-18-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mu[illegible] / [signature] 240096 1/23/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 12/13/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69066

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc-1.5-2spvc
Serial No.: L-11523
Manufacture Date: 6-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-13	08-5-14
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: Justin Lopez / [signature] 1266430 12-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NuCfil
Model No.: 019DS
Serial No.: JL-867
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.: 109069

Comments: N/C

5.[35] Performed By: Frederico Ochoteta / [signature] 1222 8261 / 12-15-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullis / [signature] 1240926 1/23/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 609066

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% cal +/- 6% cal

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

Performed By: Frederico / / / /
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☐ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Range:	in-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: Frederico Archuleta / [signature] 1228889 12-15-13
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.: 69066

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 379.6 lbs

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

Comments: N/C

6.[32] Performed By: Frederick Holdsta / [signature] 1220526 / 12-15-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mellins / [signature] 1240096 / 1/23/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 3
Page 1 of 1

Working Copy
Date: 12/15/13 HS

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68735

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): 434.4

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: Frederico [illegible] / [signature] 1225524 / 12-15-13
Waste Handling Technician (print) Signature Z # Date

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

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

8.1[8][D] Approved by: [illegible] / [signature] 1425 / 1/24/14 1010
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum 1954 SPD

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled & given new number. B Dougillo 11/20/13

Container ID: S860014 \ 68735 Container Type: 85-GAL Gross Weight (lbs): 445
Inner Seal #: 021421 Filter Prefix: LAVC Filter Serial #: 00983; 02973
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0750
Total PE-Ci Activity: 1.56E+01 Equivalent Combustible PE-Ci: 5.86E+00 AM-241 PE-Ci: 1.28E+00
Total Fissile Gram Equivalents: 171.9 Total Surface Dose Rate (mrem/hr): 6
EPA Code(s): [redacted] D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 7/9/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 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: 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 J. Ramsey / 100681 / 11/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering Put in compliant 85gal @ 224/412 to ship to WCCR.

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: 385#. Generator info shows 15 items of nitrate salts, with weights ranging from 5-54#. No RTR BDR. RTR PS shows prohibited liquids + impenetrable item(s). Nitrate salts typically packaged in plastic bags; debris, t/or undocumented liquids commonly present. Applicable waste codes are lead, chromium, + mercury. Repack w/ admixture is required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/7/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: USE Proper PPE And Kitty Litter Katrin

Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Do not push or press on waste with hands. Use heavy gloves during processing.

Performed By: Gilbert Martinez / [signature] / 114235 / 11/13/13
TRU Remediation Operations (Print) Signature Z Number Date
David L. Blain / David L. Blain / 218069 / 11/14/13
Jose Serez / [signature] / 221452 / 12/6/13

THS REVIEW: RB 206362 11.27.12 NOTES: D007 - Chromium
D008 - LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 021421

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
							53 TW			
1	10LR22W1		5.010	NITRATE SALTS		0.87	~~52~~	9/13	G468	
2	10LR22E1		8.310	NITRATE SALTS		2.	53	9/13	G468	
3	10LR22W2		11.250	NITRATE SALTS		2.	53	9/13	G468	
4	100X23W1		12.800	NITRATE SALTS		8.89	52	9/13	G468	
5	10RR23E1		5.190	NITRATE SALTS		2.28	52	9/13	G468	
6	100X23E1		2.640	NITRATE SALTS		0.359	52	9/13	G468	
7	10LR24E1		3.100	NITRATE SALTS		0.07	52	9/13	G468	
8	10LR24W2		9.800	NITRATE SALTS		0.43	52	9/13	G468	
9	10LR24W1		4.400	NITRATE SALTS		0.29	52	9/13	G468	
10	10LR28E1		4.850	NITRATE SALTS		3.16	52	9/13	G468	
11	10LR28W1		9.070	NITRATE SALTS		2.66	52	9/13	G468	
12	10LR28E2		10.900	NITRATE SALTS		4.29	52	9/13	G468	
13	100X29E1		8.370	NITRATE SALTS		137.3	52	9/13	G468	
14	10DS31W1		24.500	NITRATE SALTS		17.61	52	9/13	G468	
15	10DS31E1		2.400	NITRATE SALTS		0.52	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 201.8

Material Type	SNM (grams)	Items Net Wt (kg)
52	178.69	103.03
53	4.	19.56
Totals	182.69	122.59

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/26/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	[signature]	12379757	1-31-11
	/	/	/

Container No. (7.[1]):	S8600014 LS	S832287 OK	S832199 OK
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene			
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	Ø

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	5960014	5832287	5832199
Hydrogen Reading (ppm) (7.[10]):	2625.58 ppm	198.87 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 1/31/11
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

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

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

11.1[7][B]/ Reviewed By: Kenny Romero Kenny Romero 117884 / 1.31.11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110126c\
Data File : 0860014.D
Acq On : 26 Jan 2011 4:46 pm (#1); 26-Jan-11, 16:46:00 (#2)
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 26 16:57:26 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	3.727	96	7800983	205.50	ppmv	0.09
15) Chlorobenzene-d5	6.046	117	6523030	182.75	ppmv	0.09
Target Compounds						Qvalue
1) Hydrogen	1.648	GC1	20543m	2625.58	ppmv	

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

vocgas.m Wed Jan 26 16:57:41 2011

12-15-13

0550 ASSUMING WCER OPS CENTER POSITION H SMITH
0550 STARTING OUT SIDE ROUNDS
0606 OUTSIDE ROUND COMPLETED
0610 STARTING PRE-JOB BRIEFING
0614 STARTING INSIDE ROUNDS
0628 ITEM #63 INSIDE ROUNDS OOS, POD IN PLACE. PERMISSION TO PROCEED PER CSE DOCUMENTATION
0640 ~~0t~~ 45 12/15/13 INSIDE ROUNDS COMPLETED
0656 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SOS
0736 BAGGING ON 68738
0747 BAG ON COMPLETED
0751 OPERATORS NOTIFIED OPS CENTER CAMS ELEVATED AFTER BAG ON, RCT'S CHECKING AND WILL NOTIFY
0753 OPERATORS NOTIFIED OPS. CENTER, RCT STATES CAM A LITTLE ELEVATED, BACK TO NORMAL RANGE AND RELENSE ROOM FOR PROCESSING. CONTINUING TO PROCESS
0858 BAGGING OFF - BAGGING ON 1 DAUGHTER
0913 BAG ON COMPLETED
0958 BEGIN DENESTING 4 DRUMS
1014 OPERATORS CALLED OUT WHILE DENESTING S842526 FOUND HOLES IN LID. THEY FILLED HOLES WITH SILICONE AND TAPED, ALSO TOOK PICTURES AND CONTINUED DENESTING.
1105 RCT'S NOTIFIED OPS. CENTER CAMS ALARM ~~[illegible]~~ 12/15/13 HS LOW FLOW ALARM, WILL NEED TO CHANGE FILTERS AND RESET AFTER DENESTING
1136 BAG ON, BAG OFF, DENESTING COMPLETED, BAGGED ON S842525
1146 LATE ENTRY: MODE CHANGE TO OPERATIONS IN WCRR YARD AND TA50-69 AT 0703 HS
1330 BAGGING OFF 1 DAUGHTER, 1 POC, BAGGING ON DAUGHTER
HS 1354 BAG ON-BAG OFF COMPLETED, CONTINUING TO PROCESS
1415 PERMISSION GRANTED TO BEGIN MOVEMENT INTO TA 50-69
1429 MOVEMENT INTO TA50-69 COMPLETED
1440 STARTING OUTSIDE ROUNDS
1451 BAGGING OFF BAGGING ON 67835
12/15/13 1482 CONTINUED IN NEW LOG BOOK H SMITH

12-15-13 CONTINUED FROM PREVIOUS LOGBOOK H SMITH

1459 COMPLETED OUTSIDE ROUNDS

1522 BAG OFF - BAG ON COMPLETED

1603 PERMISSION GRANTED TO MOVE WASTE FROM TA50-69 TO TA50-194

1604 OPERATORS NOTIFIED OPS CENTER BOX SMOULDERIN AND TURNING ORANGE CLOUD. NOTIFYING I.H.

1608 ITEM # 63 INSIDE ROUNDS OOS. POD IN PLACE, PERMISSION TO PROCEED PER CSE DOCUMENTATION

1613 INSIDE ROUNDS COMPLETED

1628 MOVEMENT TO TA50-75 FROM TA50-69 IS COMPLETED 9 CONTAINERS MOVED FROM TA50-69.

1635 OPERATORS NOTIFIED OPS CENTER OF REACTION DUE TO FAST CHEMICAL CHANGE WHEN NUETRALIZER WA ADDED IN THE BOX. OPERATORS ADDED MORE KITTY LITTER WHICH SLOWED THE PROCESS. IH IS OBSERVING AND HAS GIVEN PERMISSION TO CONTINUE PROCESSING.

ABNORMAL EVENT

1638 LATE ENTRY: OPERATORS NOTIFIED OPS CENTER OF 12-15-1 HS SMOUL SMOULDERING IN BOX DISCHARGING ORANGE CLOUD. NOTIFIED SOM & SOS AND IH, AT 1632. HS

1656 BAGGING OFF - BAGGING ON 1 DAUGHTER

1702 I-H INFORMED OPS. CENTER OF NO MORE REACTION TO LIQUID, AND WILL CONTINUE TO PROCESS.

1712 BAG ON, BAG OFF COMPLETE OF DAUGHTER

1713 INSIDE AND OUTSIDE ROUNDS REVIEW BY SOS

1738 BAGGING OFF 2ND DAUGHTER AND INSTALLING PORT COVER

1802 BAG OFF COMPLETE

1805 WCG RECEPTACLE HAS BEEN TURNED ON

1811 MODE CHANGE DECREASE TO WARM - WARM STANDBY

12-15-13 1830 END OF DAY, WCRR OPS CENTER SECURED H SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

12/15/13 WCRR SOM

0600 Assumed the WCRR SOM position.

0635 Completed pre job brief conducted by SOS. Safety topic from IH was to keep focused on last day of shift. House Keeping of WCG to be performed @ end of shift w/ thorough glove inspections. Challenged operators to improve efficiencies of operations - one idea was to have enough glove expanders to prep all gloves prior to donning respirators - currently have 2 inside 50-69. Due to changing to SP72 processing, outside PIC is accumulating materials required i.e. Kitty litter, neutralizer, etc.

0654 Inside / Outside rounds reviewed w/ TSR Tracking sheet updated / Status board updated.

0703 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0747 Completed bag on of drum # 68738.

0751 Operators notified OCO of slightly elevated CAMs, RP-1 invest.

0753 RP-1 reported that CAMs are reading normal - continuing to process.

0913 Completed bag off of 1 daughter - continuing to process.

0958 Operators beginning to denest 4 drums (~~7~~ 12/15/13 SP 72's)

1014 While denesting drum # 5842524 operators encountered a hole in the lid of inner drum. They filled the holes w/ silicon and taped over, pictures were taken and continued to denest

1105 RP-1 reported to ops center they have a low flow alarm on CAMs CAMs still functional and filters will be changed after denesting completed.

1136 Denesting is completed. All bag offs completed for drum # 68738 (2 daughters total) Completed bag on of drum # 5842524.

1215 RP-1 lead reported that all CAM filters were changed out despite only 1 was alarming — others were indicating getting close to low flow setpoints and Monday is scheduled change out day.

1354 Completed bag off of 1 daughter and 1 POC - continuing to process

1400 SOS update from 412 operations - had an operator become sick so will complete SWB ~~bag~~ 12/15/13 denest in progress. Another operator is being provided from Dome 375 operations to assist

continued on next page →

12/15/13 WCRR SOM continued.

1423 Relieved by L. Jalbert as SOM.

1423 ASSUMED SOM DUTIES.

1604 During neutralization of 300 parent liquids (pH of 4 → pH of 7), orange/brown vapors appeared. Pause called, workers stepped back and IH investigated. IH was onbox at time. Minor exothermic reaction. No damage to bags, gloves or tooling. Not unusual for most neutralization concern Nitric acid.

~~1623~~ Move out commences (2 containers)

12/15/13 1635 Ops resumed - IH considered it a "fast" reaction

1652 ~~1756~~ Bag off 1st daughter, bag on second daughter commences

1702 IH concludes observation of neutralization activities.

1712 bag on, bag off of daughters complete

1738 bag off commences for second daughter, parent, install port covers

1811 Mode change: Operations/Operations to WARM/WARM FOR SITE/FACILITY

1812 LATE ENTRY T 1755: BAG OFFS COMPLETE

1830 SECURE SOM SHIFT.

No further entries this page

55

12-15-13

0700 Incoming WCRRF SOS position [illegible]
0615 pre job being conducted briefed to being safe while dewatering, plate changes and efficiency
0635 Pre job concluded.
0654 Rounds signed off
0730 Bagging on 487738
0747 Bag on completed
0858 Bagging on 1 daughter, bagging off 1 daughter
0913 Bag on complete
0948 Starting to dewater 4 drums
1136 Bag on, bag off completed bagged on 584252 and completed dewatering
1137 late entry - mode change to operations inside TAST and WCRRF yard at 703 Chelan
1330 Starting bag off of 1 daughter and 1 PCC will be bagging on another daughter
1354 Bag on, bag off complete
1415 Starting movement into SD 69.
1429 movement into SD 69 is complete.
1440 Starting on 12-15-13 outside rounds.
1455 Bagging off, bagging on 487835
1459 Completed outside rounds
1522 Bag on, bag off complete
1603 Starting movement into transportainers
1604 notified by LPO [illegible] of [illegible] liquid and turning into thick smoke inside plane per 1H has been notified
1613 Inside rounds complete
1629 movement out of SD 69 complete
1635 1H notified that reaction in WCQ was caused from a past chemical change when neutralizer was added. OK to continue processing.
1654 Bagging on 1 daughter, bagging off 1 daughter
1712 Bag on, bag off, complete
1713 Rounds signed off
1758 starting bag off and unloading pert cones
1803 Bag on, Bag off complete
1805 WCQ receptacle has been turned on
1811 mode change performed to warm standby in ST 69 and WCRRF yard
1830 End of day SOS position secure [illegible]

no further entries 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-RTR2-13-0138
Examination Date:	12/19/2013
Waste Container ID:	69063
Video/Audio Recorded Media Number:	LA-RTR2-13-0138 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.: 159.0 kg Tare Wt.: 33.4 kg Net Wt.: 125.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 69063

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Closure ring

AM:

OM:

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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	116.6
Soils (S):	
Total WMP Weight:	125.6

CCP Radiography Data Sheet

Waste Container ID: 69063

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	12/19/2013
Print Name	Signature	Date

5860014

NDA 2000 Assay Report

Item Information

Item ID:	69063	Count Sequence Number:	24085
Operator:	D3PW2DK1\operator		
Assay Start:	1/10/2014 2:26:13 PM		
Description 1:	1LANDA1888		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 126.0 kg	Net:	126.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
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:	24085	Batch Number:	1LANDA1888
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:	69063	Analysis Date:	1/10/2014

Net Weight	126000.0 g			
Pu mass	1.09E+002	+-	2.29E+001	g
TRU Alpha Activity	1.41E+001	+-	3.61E+000	Ci
TRU Activity Concentration	1.12E+005	+-	2.86E+004	nCi/g
Pu-239 Equivalent Activity	1.43E+001	+-	3.61E+000	Ci
Pu-239 FGE	1.03E+002	+-	2.28E+001	g
Decay heat	4.51E-001	+-	1.19E-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	1.12E-006
U233	<LLD	<LLD	0.00E+000	1.32E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.93E-006
NP237	1.29E-001	9.12E-005	1.78E-005	6.16E-006
PU238	9.99E-003	1.71E-001	4.50E-002	2.13E-003
U238	<LLD	<LLD	0.00E+000	2.42E-005
PU239	1.03E+002	6.36E+000	1.41E+000	7.95E-002
PU240	6.63E+000	1.51E+000	3.97E-001	1.88E-002
AM241	1.75E+000	6.02E+000	3.29E+000	1.52E-001
PU241	1.25E-001	1.28E+001	3.38E+000	1.60E-001
PU242	2.19E-002	8.66E-005	2.28E-005	0.00E+000
AM243	3.69E-003	7.38E-004	1.45E-004	1.79E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1/14/14

ITR: _____ Date: 1.14.14

Automated Independent Technical Review

Count Sequence Number: 24085 Batch Number: 1LANDA1888
Counter ID: MCS HENC #1
Container ID: 69063
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
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: 1-13-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69063**

BDR Number: **LA14FG12009**

Sampling Date: **1/21/2014**

S 860014

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	742.39	
74-82-8	Methane	6.56	U
67-56-1	Methanol	8.48	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	1.30	
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	0.27	
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\140121C\
Data File : 69063.D
Acq On : 21 Jan 2014 1:27 pm (#1); 21 Jan 2014 1:26 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 21 13:36:42 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	8739916	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6804704	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.910	GC1	211768	742.39	ppmv	100
4) Methanol	0.824	31	3917m	8.48	ppmv	
7) Acetone	1.363	58	3031	1.30	ppmv	82
12) Benzene	3.720	78	9732	0.27	ppmv	95

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

31

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0138
Examination Date:	12/19/2013
Waste Container ID:	69066
Video/Audio Recorded Media Number:	LA-RTR2-13-0138 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.: 172.0 kg Tare Wt.: 33.4 kg Net Wt.: 138.6 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: 69066

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):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	114.6
Soils (S):	
Total WMP Weight:	138.6

CCP Radiography Data Sheet

Waste Container ID: 69066

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	12/19/2013
Print Name	Signature	Date

S860014

NDA 2000 Assay Report

Item Information

Item ID:	69066	Count Sequence Number:	24083
Operator:	D3PW2DK1\operator		
Assay Start:	1/10/2014 1:01:15 PM		
Description 1:	1LANDA1888		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 139.0 kg	Net:	139.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.740 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24083	Batch Number:	1LANDA1888
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:	69066	Analysis Date:	1/10/2014

Net Weight	139000.0 g		
Pu mass	1.14E+002	+-	3.48E+001 g
TRU Alpha Activity	1.49E+001	+-	5.01E+000 Ci
TRU Activity Concentration	1.07E+005	+-	3.60E+004 nCi/g
Pu-239 Equivalent Activity	1.51E+001	+-	5.01E+000 Ci
Pu-239 FGE	1.07E+002	+-	3.48E+001 g
Decay heat	4.77E-001	+-	1.64E-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	9.24E-007
U233	<LLD	<LLD	0.00E+000	9.46E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.72E-006
NP237	1.07E-001	7.56E-005	1.45E-005	4.33E-006
PU238	1.04E-002	1.77E-001	6.21E-002	1.97E-003
U238	<LLD	<LLD	0.00E+000	2.18E-005
PU239	1.07E+002	6.61E+000	2.15E+000	7.32E-002
PU240	6.89E+000	1.56E+000	5.56E-001	1.73E-002
AM241	1.90E+000	6.50E+000	4.49E+000	1.20E-001
PU241	1.29E-001	1.33E+001	4.73E+000	1.48E-001
PU242	2.28E-002	8.99E-005	3.19E-005	0.00E+000
AM243	3.09E-003	6.18E-004	1.20E-004	1.29E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1/14/14

ITR: _____ Date: 1·14·14

Automated Independent Technical Review

Count Sequence Number: 24083 Batch Number: 1LANDA1888
Counter ID: MCS HENC #1
Container ID: 69066
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 1-13-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69066**

BDR Number: **LA14FG12009**

Sampling Date: **1/21/2014**

S 8/600014

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	567.94	
74-82-8	Methane	6.56	U
67-56-1	Methanol	15.55	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	1.03	
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	0.24	
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	1.38	
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\140121C\
Data File : 69066.D
Acq On : 21 Jan 2014 1:39 pm (#1); 21 Jan 2014 1:38 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 21 13:47:50 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	8796689	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6841488	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	162006	567.94	ppmv	100
4) Methanol	0.831	31	7229	15.55	ppmv	100
7) Acetone	1.357	58	2400m	1.03	ppmv	
12) Benzene	3.720	78	8587	0.24	ppmv #	87
17) Toluene	5.580	92	38250	1.38	ppmv	94

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

32

S860093

S860093

Container Profile 753944

File Options Reports Help

S860093

753944	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

S860093

S860093
- LA00000068615
- LA00000068554
- LA00000068593 - empty

Task History

Transfer Details

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

ATTACHMENT 1
Page 1 of 4

11/6/13 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S869093

6.2[4] Date Processed: 11-06-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Brian Gallegos / [signature] / 267129 11-06-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5860093

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 428.8 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 428.8 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.: 5860093

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68615	68554		
10.1[4]	Daughter Drum Filter No.	LH-317	LM-353		
10.1[4]	Daughter Drum Bag Filter No.	L-10339	L-11506		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
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	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	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 (%)	80%	90%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER, BAG OUT STUBS	Kitty Litter Plastic		

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5860093

Comments: ROOM TRASH, PLASTIC, NITRATE SALTS, KITTY LITTER,

11.1[1] Performed By: Melinda Stewart Melinda Stewart 1277265 11-6-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins CM 1240092, 11/7/13 0341
SQS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

10/31/13

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 02388666
Manufacture Date: 13

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

	Filtered Vent	2-in. Bung
M&TE No.:	1602116	636745
Cal. Expiration Date:	12.18.13	8.5.14
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL.925
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] / 1237720 / 10/31/13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA / [signature] / 1237720 / 10/31/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] / 240091 / 11/7/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11/6/13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68593

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 + 7-6% ccw

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

Performed By: Melinda Stewart / Melinda Stewart 1277268 11-6-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[34][D] 85-gal overpack drum gross weight (lb): 171.8 lb

Comments: N/C

8.1[1] Performed By: Melinda Stewart / Melinda Stewart 1277268 11-6-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / CX 240091 11/7/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68554

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CRVC1.5-2SPVC
Serial No.: L-11506
Manufacture Date: 6/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	JC 11-6-13 ~~[illegible]~~ 038369	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	JC 11-6-13 ~~[illegible]~~ 16-80	10-80
Tolerance:	JC 11-6-13 ~~±4% cw~~ ±3% 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 / B. Gallegos / 267129 / 10-21-13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 0190S
Serial No.: JMB 11-6-13 ~~LM-353~~ LM-867
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: JC 11-6-13 ~~120~~ 10 ~~in-lb~~ ft-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.: 68554

Comments: N/c

5.[35] Performed By: Brian Gallegos / [signature] / 267139 10-21-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240092 11/2/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-7-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68554

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

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +/-5% cw + +/-6% ccw

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

Performed By: Melinda Stewart (Operator (print)) / Melinda Stewart (Signature) / 127268 (Z #) / 11-6-13 (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: N/A (Operator (print)) / N/A (Signature) / N/A (Z#) / N/A (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.: 6855-1

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 403.8 lbs

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

Comments: N/C

6.[32] Performed By: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 1277268 (Z #) 11-6-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) (Signature) 1240921 (Z #) 11/7/13 (Date)

10 31 13 jr

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68615

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvcl.5-2spvc
Serial No.: L-10339
Manufacture Date: 6-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	1002116	0362245
Cal. Expiration Date:	12-18-13	8-5-14
Range in ft-lb:	40-200 in-lb	16-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: GERALD ESPENOZA [signature] 1237729 10/31/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-317
Manufacture Date: 12-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 108615

Comments: N/A

5.[35] Performed By: GERALD ESPINOZA [signature] 1287720 10/31/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [signature] 1240092 11/7/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-7-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68615

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

M&TE No.: BG 11-06-13 ~~038245~~ 038369
Cal. Expiration Date: BG 11-06-13 ~~8-05-14~~ 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: Brian Gruessos / Brian Gallagher / 267129 / 11-06-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / N/A / N/A
Operator (print) / Signature / Z # / Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68615

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 278.8 lbs

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

Comments: N/C

6.[32] Performed By: Melinda Stewart / Melinda Stewart 1277265 11-6-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / CA 1240098 11/7/13
Supervisor or designee (print) Signature Z # Date

1a38
SP77

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S860093 Container Type: 55-GAL Gross Weight (lbs): 439
Inner Seal #: 020308 Filter Prefix: LAVC Filter Serial #: 06160
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0753
Total PE-Ci Activity: 2.69E+00 Equivalent Combustible PE-Ci: 1.01E+00 AM-241 PE-Ci: 2.18E-01
Total Fissile Gram Equivalents: 29.7 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/12/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 19", 25"
Certified RTR Comment: None

Prohibited Items: ☑ Sealed > 4 Liters ☒ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 12/20/12
Production Control (Print) 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: 379#. Generator info shows 14 items of nitrate salts; weights range from 4-43#. No RTRBDR. Nitrate salt are typically packaged in plastic bags; undocumented liquids & or debris may also be present. RTR PS shows prohibited liquids & impenetrable object(s). No chemicals identified; nitrate salts carry waste codes for chromium lead & mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/18/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavyweight gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And Kitty Litter Ratio

Performed By: G Martinez / [signature] / 149235 / 6/20/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez [signature] 221452 6/22/13

IHS Review Julius Amalbert CSP, may contain Pb, Hg + Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 020308

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	12RR2W1		2.130	NITRATE SALTS		3.08	52	9/13	G468	
2	12DS3W1		3.700	NITRATE SALTS		2.94	52	9/13	G468	
3	12LR3E1		4.500	NITRATE SALTS		0.53	52	9/13	G468	
4	12LR3W1		16.380	NITRATE SALTS		3.45	52	9/13	G468	
5	12OX4W1		20.100	NITRATE SALTS		4.88	52	9/13	G468	
6	11LR26W1		3.540	NITRATE SALTS		0.22	52	9/13	G468	
7	12OX4E2		9.310	NITRATE SALTS		0.94	52	9/13	G468	
8	11LR26W2		10.300	NITRATE SALTS		2.25	52	9/13	G468	
9	11LR18E2		5.570	NITRATE SALTS		0.85	52	9/13	G468	
10	11LR18W2		11.670	NITRATE SALTS		1.54	52	9/13	G468	
11	12OX6W1		6.970	NITRATE SALTS		1.21	52	9/13	G468	
12	12OX6E1		16.830	NITRATE SALTS		6.64	52	9/13	G468	
13	12RR9W1		3.430	NITRATE SALTS		1.29	52	9/13	G468	
14	12RR9E1		4.240	NITRATE SALTS		1.75	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	31.57	118.67
Totals	31.57	118.67

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/18/13

Container No. (5.[1])	S860093					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	748.6 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: Erik Loechell / 234183
CCP (Print) Z#

Reviewed By: Nathan Wakes / 238846
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 / Susan L. Ramsey / 100681 / 5/30/13
Waste Handling Operator (print) Signature Z# Date

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130418c\
Data File : S860093.D
Acq On : 18 Apr 2013 3:31 pm (#1); 18 Apr 2013 3:30 pm (#2)
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM FILTER-UN-19DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 18 15:40:15 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.060	96	8296501	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	6655340	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.900	GC1	213536m	748.64 ppmv	

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

VOCGAS.M Thu Apr 18 15:40:27 2013 UNIT12

11-6-13 CONTINUED FROM PREVIOUS PAGE H SMITH

1450 STARTING OUTSIDE ROUNDS

1458 ITEM #63 OOS, INSIDE ROUNDS, OKAY TO PROCEED PER CSE DOCUMENTATION

1500 COMPLETED INSIDE ROUNDS

1513 OUTSIDE ROUNDS COMPLETED

1540 BAGGING ON - BAGGING OF DAUGHTER & CONTINUE TO PROCESS

1550 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SDS

1552 BAG ~~OD~~ 11/4/13 HS OFF COMPLETE

1633 BAGGING ON DAUGHTER, BAGGING ON S860093

1705 BAG OFF - BAG ON COMPLETE

11/6/13 RLG 1800 BEING RELIEVED BY OCD TERI COLEMAN H SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

11-6-13
1800 Assuming WCRR operations center - JC Coleman
1820 Pre-job being conducted by SOS.
1842 Pre-job concluded. 2 operators and myself briefing to new ~~RWP~~ JC 11-6-13 JWO# ES-WCRRF-2013-002.0
2015 Bagging off 1 daughter, bagging on another daughter.
2027 Bag off/on complete.
2131 Initiating a drum movement from 50-69 to a transportainer.
2149 Drum movement out of 50-69 complete.
2242 Operators denesting 2 drums.
2320 Denesting complete. Bagging off and bagging on S852895
2343 Bag on/off complete.
11-7-13 0002 Operators out for lunch.
0030 Beginning outside rounds.
~~0050 Item# JC~~ 11-6-13
0100 Outside rounds complete.
0220 Beginning inside rounds.
0221 Late entry - at 0119, operators back from lunch (JC)
0238 Item #63 is OOS, okay to proceed per CSE documentation.
0239 Inside rounds complete.
0326 Both rounds reviewed by SOS.
0335 Bagging off 1 daughter, bagging on another daughter.
0352 Bag off/on complete.
0520 Bagging off 2 daughters.
0541 Bagging on S833409
0550 Bag off/on complete.
0556 Air quality personnel arrived to perform weekly stack monitoring
11-7-13 0603 Being relieved by CCO, Howard Smith, JC Coleman

No further entries this page

11-6-13 Day Shift

0610 Reviewed shift turnover checklist and assumed the WCRR SOM position from Guardagnoli

0615 DOE and representative from TR-53 (DOE) enter site to perform assessment.

0622 Reviewed and approved daysheet workbill.

0647 Completed attending the project brief conducted by (Gilbert). The current SOS is Clarissa. Facility and equipment updates were provided noting the Roto Grip and Vera-Lift are leaking oil. RFS's were submitted. Discussed shift orders in effect, there is one transfer out scheduled. Radiation decontamination was briefed on and TSR (pace to) steps were discussed.

0700 Conducted daily Facility POD update with AREAG SOM

0735 Turned the SOM over to Lou Marbert John Guardagnoli

0735 ASSUME SOM DUTIES.

0758 MODE CHANGE FROM OPERATIONAL/OPERATIONAL TO WARM/WARM FOR SITE/SU-69 - STATION 1 (RT) AND STATION 3, 4, 5 AND 7 GLOVE CHANGE.

0755 WCRR MONTHLY VALVE ALIGNMENT COMPLETED (SR 4.2.4). SIGNED OFF. COPY SENT BY OC TO CSE MOORE.

1040 PASS ONSITE TO WORK ON ROTOGRIP.

1105 GLOVE CHANGES COMPLETE. ROTOGRIP MAINTENANCE UNDERWAY

1136 MAINTENANCE COMPLETE. FOUND NO LEAKS. RETURNED TO SERVICE.

1145 MODE CHANGE AT WCRR: WARM/WARM TO OPERATIONAL/OPERATIONAL FOR SITE/SU-69

1200 LUNCH TIME CALL IN.

1505 J. VIGIL GETS SOME SAMPLE LEADED GLASS FROM TASS, GAVE TO SOS TO TRY OUT.

1[illegible] SAMPLE GLASS TRIED OUT. DIMENSIONS WRONG BUT CAN BE CUT TO FIT. WILL USE ES FOR THIS TASK.

1624 TURN SOM DUTIES OVER TO J GUADAGNOLI

1624 Assumed the SOM duties John Guardagnoli

1633 Inside Operators report bagout of 3rd daughter and bagon Event SE-11-93

(Continued on Next Page)

11-6-93 DAYSHIFT (Cont.)

1637 Verified with OCO of caution tag removed from Pete Crip. It was removed by maintenance

1648 Completed review of inside and outside rounds.

1704 TA 50-54 machine shop provided SS plates for the WCCG small windows (lead replacement). The dimensions note rectangle. Consultation with Jivigil will be required prior to use, also with Rad Engineering.

1706 Inside operations report Bigon and Dog off completed.

1805 Initiated shift turnover utilizing shift turnover checklist.

1810 Relieved by R. Axtell as WCRR SOM [illegible]

No further Entries this Page

11/6/13 Night Shift

1810 Reviewed shift turnover checklist, approved and posted Night shift Operations watchbill, assumed WCRR SOM position.

1845 Pre job brief was conducted and completed by SOS. Safety topic by IH was use of rigging equipment here @ WCRR. Discussed status of lead window procurement, Roto Grip evaluation by mechanics (OK to use) and repairs required to return to service the Versa Lift. Briefed workers on active shift orders.

2027 Completed bag off of 1 daughter - continuing to process.

2149 Operators completed movement of 4 drums from 50-69 to transportainers.

2326 Operators completed denesting 2 drums

2343 Completed all ~~pt~~ 11/6/13 bagoffs for parent # S860093 (2 daughters total). Bagged on S852895

11/13 0002 Operators breaking for lunch.

0119 Resuming operations

0352 Completed bagging off 1 daughter - continuing processing

0535 Reviewed Roundsheets. No issues

0545 Reviewed compliance tracking schedule - Status board updated.

0544 Late Entry @ 0541 Operators in process of bagging off 2 more daughters to complete parent S852895 (3 daughters total). Bagging on drum # S833409. LRG

11/13 0606 Relieved by J. Gundagnola as WCRR SOM

No further entries this page LRG

PROJECT NAME _____ NOTEBOOK NO. _____

11-6-13

0600 Assuming WCREFSOS position - Crelarde
0615 Performing pre job briefing - IH briefing on TWD.
0644 Pre job and TWD briefing concluded.
0700 Operators entering 50-69 to processing 9822952.
0730 notified by Operators that RATS requesting glove changes on Station 1,3,4,5 and 7
0745 Being relieved by SOS Gilbert Martinez - Crelarde.
0748 Assuming Position [illegible]
0823 Starting shipment out to Nova Gas
0847 Starting Glove changes on station 1, 3, 4, 5 and 7
0915 Shipment out complete. Late entrie at 0803 Monthly Valve Alignment started [illegible] 11-6-13
0955 Monthly Valve Alignment Complete
1103 Glove Changes Complete
1115 Maintenance Personal Entering 50-69 to work on Bale Grip
1129 Maintenance Personal could not find leak. Equipment was put back into service
1145 Mode change Complete WCREF to Operations.
1146 operators Begin to Process
1157 Starting Movement into 50-69
1221 Movement Complete
1357 Starting Movements out of 50-69
1419 Bagging off Daughter Bagging on Mother
1437 Movement out of 50-69 complete
1438 Bag off complete:
1440 Starting Bounds
1540 Bag on left Daughter and Anchoring
1558 Inside and outside Bounds Berthwood
1559 Bag off Complete
1635 Bagging on left Bagging on 5861093
1705 Bag on left complete
TWD 1815 Relieved by Clayton Mullins [illegible]

no further entries on this page

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

WCRRF 505 Log Book

11/6/13

1816 Assuming 505 position. CA

1818 Starting Pre-Job, discussed turnover from day shift as well as ensure that all rigging equipment is certified and that personnel is trained.

1841 Pre-Job complete.

2015 Bagging off 1st daughter, bagging on a 2nd.

2027 Bag off/on complete.

2131 Starting movement out of 50-69.

2149 Movement out complete.

2242 Starting to denest 2 drums.

2320 Denesting complete. Bagging off 2nd daughter, bagging on 5852895.

2343 Bag off/on complete.

0326 Signed off on the rounds.

0335 Bagging off 1st daughter, bagging on a 2nd.

0352 Bag off/on complete.

0520 Bagging off 2nd and 3rd daughter, 5833409.

0550 Bag off/on complete.

LG 0610 Turning over 505 position to Gilbert Martinez. CA 11/7/13

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-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68554
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 183.5 kg Tare Wt.: 33.4 kg Net Wt.: 150.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68554

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Tape rolls

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):	24.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.3
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	119.8
Soils (S):	
Total WMP Weight:	150.1

CCP Radiography Data Sheet

Waste Container ID: 68554

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

Comments: N/A

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68554	Count Sequence Number:	23852
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 11:30:11 AM		
Description 1:	1LANDA1866		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 150.0 kg	Net:	150.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.850 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23852	Batch Number:	1LANDA1866
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68554	Analysis Date:	11/15/2013

Net Weight	150000.0 g		
Pu mass	1.91E+001	+-	8.23E+000 g
TRU Alpha Activity	4.08E+000	+-	1.93E+000 Ci
TRU Activity Concentration	2.72E+004	+-	1.29E+004 nCi/g
Pu-239 Equivalent Activity	4.12E+000	+-	1.93E+000 Ci
Pu-239 FGE	1.80E+001	+-	8.21E+000 g
Decay heat	1.33E-001	+-	6.40E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.20E-007
U233	<LLD	<LLD	0.00E+000	5.15E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.52E-006
NP237	7.50E-002	5.29E-005	1.10E-005	2.50E-006
PU238	1.75E-003	2.99E-002	1.42E-002	7.01E-004
U238	<LLD	<LLD	0.00E+000	1.47E-005
PU239	1.79E+001	1.11E+000	5.09E-001	2.61E-002
PU240	1.15E+000	2.60E-001	1.25E-001	6.11E-003
AM241	7.80E-001	2.68E+000	1.86E+000	1.05E-001
PU241	2.19E-002	2.26E+000	1.08E+000	5.30E-002
PU242	3.83E-003	1.51E-005	7.24E-006	0.00E+000
AM243	8.93E-004	1.79E-004	3.75E-005	7.04E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23852 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68554
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

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

Expert Review by: Sheri Chamberlin Date: 11-19-13

Waste Container ID: **68554**

BDR Number: **LA13FG12120**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	238.03	
74-82-8	Methane	6.56	U
67-56-1	Methanol	10.82	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.48	
75-34-3	1,1-Dichloroethane	0.72	U
156-59-2	cis-1,2-Dichloroethene	0.09	U
78-93-3	Methyl ethyl ketone	0.90	U
110-82-7	Cyclohexane	0.59	U
71-43-2	Benzene	0.17	U
107-06-2	1,2-Dichloroethane	0.56	U
71-36-3	1-Butanol	0.38	U
108-10-1	Methyl isobutyl ketone	0.66	U
108-88-3	Toluene	2.15	
108-90-7	Chlorobenzene	0.67	U
100-41-4	Ethylbenzene	0.59	U
108-38-3/106-42-3	m- and p-Xylene	0.38	U
95-47-6	o-Xylene	0.36	U
108-67-8	1,3,5-Trimethylbenzene	0.65	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68554.D
Acq On : 22 Nov 2013 12:03 pm (#1); 22 Nov 2013 12:02 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 12:12:08 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.060	96	5623214	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	4378161	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.907	GC1	67899m	238.03	ppmv	
4) Methanol	0.824	31	3214	10.82	ppmv	100
7) Acetone	1.370	58	717	0.48	ppmv #	48
17) Toluene	5.577	92	38070	2.15	ppmv	93

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68615
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 126.5 kg Tare Wt.: 33.4 kg Net Wt.: 93.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 68615

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags, plastic sheeting, 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	85.1
Soils (S):	
Total WMP Weight:	93.1

CCP Radiography Data Sheet

Waste Container ID: 68615

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

Comments: N/A

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

5860093

NDA 2000 Assay Report

Item Information

Item ID:	68615	Count Sequence Number:	23864
Operator:	D3PW2DK1\operator		
Assay Start:	11/19/2013 11:25:29 AM		
Description 1:	1LANDA1867		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 93.1 kg	Net:	93.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.560 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:	23864	Batch Number:	1LANDA1867
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:	68615	Analysis Date:	11/19/2013

Net Weight	93100.0 g		
Pu mass	8.03E+000	+-	1.23E+000 g
TRU Alpha Activity	2.48E+000	+-	1.02E+000 Ci
TRU Activity Concentration	2.66E+004	+-	1.09E+004 nCi/g
Pu-239 Equivalent Activity	2.50E+000	+-	1.02E+000 Ci
Pu-239 FGE	9.20E+000	+-	1.27E+000 g
Decay heat	8.12E-002	+-	3.38E-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	4.27E-007
U233	<LLD	<LLD	0.00E+000	3.86E-003
U234	3.55E-002	2.21E-004	4.62E-005	0.00E+000
U235	2.53E+000	5.47E-006	1.15E-006	1.94E-006
NP237	4.64E-002	3.27E-005	5.34E-006	1.76E-006
PU238	7.33E-004	1.25E-002	2.59E-003	9.00E-004
U238	<LLD	<LLD	0.00E+000	2.05E-005
PU239	7.53E+000	4.67E-001	7.57E-002	3.35E-002
PU240	4.81E-001	1.09E-001	2.35E-002	7.84E-003
AM241	5.51E-001	1.89E+000	1.01E+000	4.26E-002
PU241	9.19E-003	9.47E-001	2.04E-001	6.80E-002
PU242	1.61E-003	6.35E-006	1.37E-006	0.00E+000
AM243	7.71E-004	1.54E-004	2.55E-005	5.23E-006

Errors quoted at 1.000 sigma

Operator: Marla Eg Date: 11-22-13

ITR: [illegible] Date: 11-25-13

Automated Independent Technical Review

Count Sequence Number: 23864
Batch Number: 1LANDA1867
Counter ID: MCS HENC #1
Container ID: 68615
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 11/19/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; 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 Chamberlain Date: 11-20-13

Waste Container ID: **68615**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	158.93	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68615.D
Acq On : 22 Nov 2013 1:02 pm (#1); 22-Nov-13, 13:01:32 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 13:10:13 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.591	96	4392399	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.891	117	3487909	177.50 ppmv	0.03
Target Compounds					Qvalue
1) Hydrogen	1.621	GC1	1195m	158.93 ppmv	

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

S860095

S860095

Container 753807

File Options Reports Help

S860095

753807	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

S860095

- S860095
  - LA00000068550
  - LA00000068452
  - LA00000068524 -EMPTY

Task History

Transfer Details

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

Working Copy
Date: 10-22-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S860095

6.2[4] Date Processed: 10-22-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: GERALD ESPINOZA / [signature] / 277720 / 10/22/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: S 8160095	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	382.4 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	Ø lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	382.4 lb
6.2[7]	(S) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[17][D]	Drum lift hinge pin retaining clip replaced.	N / N /
		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.: 58600095

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68550	68452		
10.1[4]	Daughter Drum Filter No.	LM358	LM272	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-6788	L-6786		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No			N/A	
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	1 GAL			
10.3[5][A]	Free Liquid Volume/Units	3 GAL			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING		N/A	
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.				N/A
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100 %	75 %		
10.5[3]/10.6[2]	Description Waste Added During Processing	PLASTIC HEX ARMORS	PLASTIC HEX ARMORS		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S8600095

Comments: NITRATE SALTS, PLASTIC, Kitty litter, leach, liquid

11.1[1] Performed By: GERALD ESPINOZA / [signature] / 1237720 / 10/22/18
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martin / [signature] / 14835 / 10-23-18 1000
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-4-13 JL

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 13

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer: MKFIL
Model No.: 013
Serial No.: JL-1072
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] / 10-4-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/A

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

8.1[6] Reviewed By: Gilbert Martinez / [signature] / 149251 / 10-23-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 102213

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68524

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% ACW ±6% CW

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

Performed By: GERALD ESPINOZA / [signature] / 237720 / 10/22/13
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): 165.5 lb

Comments: N/A

8.1[1] Performed By: GERALD ESPINOZA / [signature] / 237720 / 10/22/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martin / [signature] / 148035 / 10-23-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68452

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.525pvc
Serial No.: L6787
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

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

Performed By: JOE QUINTANA (Operator (print)) | Joe Q (Signature) | 239981 (Z #) | 9/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 01905
Serial No.: LM 272
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 68452

Comments: N/C

5.[35] Performed By: Joe Quintana (Operator (print)) | Joe Q (Signature) | 239987 (Z #) | 9/18/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) | [signature] (Signature) | 149357 (Z #) | 10-23-13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 108452

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERALD ESPINOZA / [signature] - 1237720 / 10/22/13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA / [signature] - 1237720 10/22/13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68452

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 319.8 lbs

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

Comments: N/C

6.[32] Performed By: GERALD ESPINOZA / [signature] / 1237720 / 10/22/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 149235 / 10-23-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-21-13 w

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68550

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: DOP
Model No.: BC 10/21/13 ~~019DS~~ 6CPVC 1.5-2PVC
Serial No.: L-6788
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Range in ft-lb:	40-200	10-80
Tolerance:	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

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

Performed By: MICHAEL MONTOYA / Brian Cordova — Operator (print) — Signature — Z # — Date: 191352 10/21/13; 1287542 10/21/13

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS BC 10/21/13
Serial No.: LM-385 358
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.: 68550

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA / Brian Cordova — Operator (print) — Signature — 191352 / 289544 — Z # — 10/21/13 / 10/21/13 — Date

7.1[4] Reviewed By: Gilbert Martinez — Supervisor or designee (print) — Signature — 149235 — Z # — 10-23-13 — Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68550

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERALD ESPINOZA [signature] 1237720 10/22/13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA [signature] 1237720 10/22/13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68550

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 331.0 lbs

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

Comments: NK

6.[32] Performed By: GERALD ESPINOZA [signature] 1237720 / 10/22/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 1492351 10-23-13
Supervisor or designee (print) Signature Z # Date

1954
SP70

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S860095 Container Type: 55-GAL Gross Weight (lbs): 396
Inner Seal #: 021431 Filter Prefix: LAVC Filter Serial #: 00369
K Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0754
Total PE-Ci Activity: 3.71E+00 Equivalent Combustible PE-Ci: 1.39E+00 AM-241 PE-Ci: 3.01E-01
Total Fissile Gram Equivalents: 41.0 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 4/30/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured Liquid Location: 25
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 P. Ramsey / 100681 / 12/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt. 336# Generator info shows 11 items of nitrate salts; weights range from 12-35#, No RTR BDR. Nitrate salts are typically packaged in plastic bags; undocumented liquids &/or other debris may be present. RTR PS shows prohibited liquids + impenetrable item(s) + unpunctured liner. No chemicals identified; applicable waste codes are for chromium lead + mercury. Nitrate salts require repack with admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/17/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And Kitty Litter Ratio

Performed By: G Mk / G Mk / 149285 / 1/20/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez Jose Jerez 221452 1/22/13

IHS Review - Jo Ann Lambert ESD may contain Pb, Hg + Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021431

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	11LR19W1		10.190	NITRATE SALTS		2.66	52	9/13	G468	
2	11LR19E1		7.220	NITRATE SALTS		0.81	52	9/13	G468	
3	110S21W1		10.330	NITRATE SALTS		4.15	52	9/13	G468	
4	110S21E1		11.290	NITRATE SALTS		2.8	52	9/13	G468	
5	110X21W1		5.760	NITRATE SALTS		0.63	52	9/13	G468	
6	110X22W1		7.230	NITRATE SALTS		6.09	52	9/13	G468	
7	110X22E1		7.490	NITRATE SALTS		9.51	52	9/13	G468	
8	11LR22W1		6.280	NITRATE SALTS		0.84	52	9/13	G468	
9	11LR22E1		7.370	NITRATE SALTS		1.95	52	9/13	G468	
10	110X26W1		15.820	NITRATE SALTS		6.26	52	9/13	G468	
11	110X26E1		11.450	NITRATE SALTS		7.85	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 179.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	43.55	100.43
Totals	43.55	100.43

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/18/13

Container No. (5.[1])	S8600095					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☒ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1549.10 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Erik Loechell (CCP (Print)), 234183 (Z #)

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

Comments:

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

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

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 5/20/13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130418c\
Data File : S860095.D
Acq On : 18 Apr 2013 12:40 pm
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM FILTER-UN-19DS (Sig #1): (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 18 12:49:18 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.063	96	9236134	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7378928	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.903	GC1	441852	1549.10 ppmv	100

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

VOCGAS.M Thu Apr 18 12:49:32 2013 UNIT12

10-22-13

0600 Assuming WCRR operations center. JCOleman

0615 Pre-job being conducted by SOS. RCT reviewing everyone on the processing monthly brief.

0642 SOM's re-briefing on shift orders WCRR-SH-13-003 and WCRR-SH-13-005.

0708 Pre-job concluded.

0712 Beginning outside rounds.

0720 Outside rounds complete.

0802 Beginning inside rounds.

0813 Shutting down ventilation to begin the ~~annual~~ Quarterly channel function ~~calibration~~ surveillance. JC 10-22-13 JC 10-22-13

0815 Ventilation is down.

0816 Acknowledged the mixer alarm.

0817 Beginning the ~~annual~~ Quarterly channel ~~calibration~~ function test. JC 10-22-13 JC 10-22-13

0818 Item #63 is OOS. Okay to proceed with rounds per CSE documentation.

0830 Inside rounds complete.

1000 Both rounds reviewed by SOS.

1022 The quarterly channel function test is complete.

1075 Restarting ventilation.

1029 Ventilation restarted. All readings normal.

1129 Beginning monthly UPS test, WO# 4467551-01

1219 The monthly UPS test is complete.

1248 Late entry at 1101, the channel function test SR 4.3.17 and 4.3.26 were due on 10-14-13. The facility was in Cold standby mode and was in stand down from 10-8-13 until 10-21-13 based upon DOE funding. The surveillances were completed at 1022 and the equipment is operable. (JC)

1254 Awaiting signature from the CSE on the monthly UPS test procedure before we ~~go into~~ JC 10-22-13 go into operations mode.

1300 Mode changed to operations in WCRRF yard and 50-69.

1305 Initiating a drum movement of 3 drums into 50-69.

1328 Drum movement completed.

Continued on next page. JCOleman

10-22-13 Continued from previous page - Coleman
1344 Bagging on S8-1975.
1401 Bag on complete.
1426 Beginning outside rounds.
1434 Beginning inside rounds.
1445 Item #63 is OOS, okay to proceed per CSE documentation.
1450 Inside rounds complete. Outside rounds complete.
1512 Both rounds reviewed by SOS.
1538 Bagging off 1 daughter, 1 POC, bagging on S8-0095
1612 Bag on/off complete.
1702 Bagging off 1 daughter, bagging off another daughter. on JC 10-22-13
1718 Bag off/on complete.
1740 Bagging off last drum of the day.
1759 Bag off complete.
1811 Mode changed to warm in WCRRF yard and 5069.
10-22-13 1830 End of day. CCO position secured. - Coleman

No further entries this page

10-22-13 DAYSHIFT

0600 Obtained shift turnover checklist and assumed the WCRR SOM position John Guadagnuli

0705 Completed attending the pre-job brief conducted by the SOS (Darrell). RWP was reviewed by the RCT lead. Shift Orders - WCRR-SH-13 003-R2, Manual Drum Movements and WCRR-SH 13-005-R0 Precautions to Prevent Bio, Tears were reviewed and operators signed off. There are no transfers scheduled for today - the channel function test will be conducted, and crafts are available, the UPS monthly will be conducted. Roles and Responsibilities were assigned. The Safety topic was Freeze Protection awareness. Team work was discussed to ensure both crews work together as a team

0706 Conducted daily AREA G/SOM - Plan of the Day phone call.

0808 Completed merging Channel Function Test - EP-WCRR-VS-DOP-0313 and the monthly UPS test.

0815 Inside Operations shutdown ventilation per procedure for the Quarterly Channel Function Test.

0901 Crafts arrive to perform the monthly UPS. Escort is assigned and RCT assigned to provide RWP brief.

1015 Met with WMC personnel and discussed LLW to be transfered to AREA L. The containers to be transfered are to be walked down.

1022 Inside operations report completion of the Channel Function Tests being performed satisfactory -

1024 The ventilation in 50/69 was restarted satisfactory.

1030 The crafts are waiting to obtain a safety watch prior to initiating work on the UPS - Notification was made to the CM. Currently waiting for the CSE to sign off on DOP 0313.

1100 Completed sign off of Channel function Test. Noted Satisfactory for SR-4.3.1.7 and SR 4.3.2.6 Current status of 50/69 is in Cold.

1120 Completed sign off of WO# 467551-01 for (M) UPS. Safety watch was provided, work was initiated.

1125 late entry for 1101 hours: Channel Function test SR 4.3.1.7 and 4.3.2.6 were due on 10-14-13. The facility was in Cold Standby Mode, and was in stand down from 10-8-13 till 10-21-13, based upon DOE Funding As noted at 1100 hrs the SR 4.3.1.7 and SR 4.3.2.6 were conducted satisfactory and equipment is noted Operable

(Continued on Next Page)

10-22-13 Dayshift (Cont).

1230 Per the OM, he obtained approval from the FOD to go operational

1255 CSE completed the sign off of work package WO# 00467551-01 - 50/69 (M) DPB 001 - all was noted satisfactory.

1300 Mode Change: WCRR YARD and 50/69 Facility transitioned from WARM/COLD to Operations/Operations.

1305 Shift Orders - WCRR - SH - 13 003 R2, MANUAL DRUM MOVEMENTS and WCRR - SH - 13 - 005 - R0 - Precautions to Prevent BAG Tears were extended through 10-29-13

1343 Upon completion of re-inventory and prepping the parent for bag on, Parent drum S861975 was identified to be bagged on - Operators initiated bag on.

1400 Inside operations report that bag on was completed.

1538 Operations report bagging off 1 daughter and 1 POC and bagging on Parent S860095

1610 Operations report bag off and bag on completed

1718 Operations completed bag off of one daughter and bag on of another and continue to process. Approximately 20% of the run remains to process, and operations will work to completion.

1740 Inside operations report bagging off daughter and parent empty S860095

1759 Bag offs were noted complete and the area was placed in a safe configuration. No TRU Drums left bagged on.

1811 Mode Change: WCRR yard and 50/69 Facility transition from Operations/Operations to WARM/WARM.
The on-call watch bill was instituted.

1818 Secured the SOM position John Meadigan

No further Entries this page.

10/22/13 WERRF SOS Log Book

0600 Assuming SOS Position [signature]

0615 Conducted Shift briefing. Reviewed RWP 2012-0015 Reviewed Shift Orders WERR-SH-13-005 Rev 0 and WERR-SH-13-003 R2, discussed Plan of the day Channel function test, Processing parents, Forklift operations Discussed slow Start after being offsite for two weeks. Discussed Wearing proper PPE and following procedures Housekeeping

0700 Pre job complete

0735 Outside Rounds completed and signed off

0813 Ventilation shutdown to begin Channel function test

0817 Quarterly Channel function test started

1000 Inside Rounds completed and signed. Reviewed Pre operational check for the daily drum lift inspection

1022 Quarterly channel function test completed and signed

1029 Ventilation returned to normal all readings set.

1129 Monthly UPS check Started

1219 Monthly UPS check Completed Awaiting Signatures

1300 Building 5069 is in operations mode

1305 ~~Moving~~ DZB 10-22-13 Starting movement of drums into 5069

1325 Movement of drums completed into 5069

1344 Bag on of drum # S861975

1401 Bag on complete

1515 Inside and outside rounds completed and signed off

1558 Bag off 1 daughter 1 PCC Bagging on drum # S860095

1612 Bag on/off complete

1752 Bag off 1 daughter, bag on 1 daughter

1718 Bag off / on complete

1740 Bagging off drum.

1752 Bag off complete

1811 Mode change to Warm in WCARF and Warm in 5069

1830 Securing SOS position for the day

No further Entries

DZB 10 22 13

CCP Radiography Data Sheet

Section 1: General Information	
☐ RTR Examination ☐ RTR Replicate Scan ☒ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68452
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	☒ No ☐ Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 145.0 kg Tare Wt.: 33.4 kg Net Wt.: 111.6 kg
Rigid Liner and Liner Vent Description:	Liner: ☒ No ☐ Yes Lid: ☒ No ☐ Yes Type: ☐ 30-mil ☐ 90-mil ☐ 110-mil ☐ 125-mil Vented: ☐ No ☐ Yes ☒ N/A Punctured: ☒ No ☐ Yes Mechanical Vent: ☒ No ☐ Yes Fiberboard Liner: ☐ No ☒ Yes Lead Lined: ☒ No ☐ Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 68452

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	3.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	96.6
Soils (S):	
Total WMP Weight:	111.6

CCP Radiography Data Sheet

Waste Container ID: 68452

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: This Independent Observation agrees with the Original Scan.

RTR Operator:

Eric Lyles		10/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68452	Count Sequence Number:	23757
Operator:	D3PW2DK1\operator		
Assay Start:	10/30/2013 2:10:30 PM		
Description 1:	1LANDA1856		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 112.0 kg	Net:	112.0 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.770 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:	23757	Batch Number:	1LANDA1856
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:	68452	Analysis Date:	10/30/2013

Net Weight	112000.0 g		
Pu mass	1.04E+001	+-	2.18E+000 g
TRU Alpha Activity	1.62E+000	+-	2.23E-001 Ci
TRU Activity Concentration	1.45E+004	+-	1.99E+003 nCi/g
Pu-239 Equivalent Activity	1.65E+000	+-	2.23E-001 Ci
Pu-239 FGE	9.82E+000	+-	2.17E+000 g
Decay heat	5.24E-002	+-	7.24E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	3.42E-009	4.72E-007	2.81E-007	0.00E+000
CS137	5.43E-009	4.72E-007	2.81E-007	3.53E-007
U233	<LLD	<LLD	0.00E+000	3.43E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	9.87E-007
NP237	2.86E-002	2.02E-005	3.98E-006	1.53E-006
PU238	9.52E-004	1.63E-002	4.17E-003	7.28E-004
U238	<LLD	<LLD	0.00E+000	9.98E-006
PU239	9.78E+000	6.06E-001	1.35E-001	2.71E-002
PU240	6.25E-001	1.42E-001	3.73E-002	6.35E-003
AM241	2.51E-001	8.60E-001	1.74E-001	3.47E-002
PU241	1.20E-002	1.23E+000	3.24E-001	5.51E-002
PU242	2.09E-003	8.24E-006	2.17E-006	0.00E+000
AM243	6.63E-004	1.33E-004	2.63E-005	4.65E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23757
Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68452
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 10/30/2013

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

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

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68452**

BDR Number: **LA13FG2112**

Sampling Date: **11/4/2013**

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\131104c\
Data File : 68452.D
Acq On : 4 Nov 2013 10:48 am (#1); 04-Nov-13, 10:47:50 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 10:56:43 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	3.542	96	4781559	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.848	117	3731408	177.50	ppmv	-0.01

Target Compounds	Qvalue

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

S860095

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68550
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 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.: 150.5 kg Tare Wt.: 33.4 kg Net Wt.: 117.1 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: 68550

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	108.1
Soils (S):	
Total WMP Weight:	117.1

CCP Radiography Data Sheet

Waste Container ID: 68550

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		10/28/2013
Print Name	Signature	Date

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

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

Item ID:            68550              Count Sequence Number:  23743
Operator:           D3PW2DK1\operator
Assay Start:        10/29/2013 12:55:17 PM
Description 1:      1LANDA1855
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:       117.0   kg        Net:   117.0 kg
Container:          Volume:    208.0   l        Full:    80.0 %
Density:                         0.700 kg /l


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

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

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23743	Batch Number:	1LANDA1855
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:	68550	Analysis Date:	10/29/2013

Net Weight	117000.0 g		
Pu mass	5.82E+001	+-	1.04E+001 g
TRU Alpha Activity	8.24E+000	+-	2.24E+000 Ci
TRU Activity Concentration	7.04E+004	+-	1.92E+004 nCi/g
Pu-239 Equivalent Activity	8.36E+000	+-	2.24E+000 Ci
Pu-239 FGE	5.48E+001	+-	9.72E+000 g
Decay heat	2.65E-001	+-	7.42E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.54E-001	1.09E-004	2.02E-005	3.91E-006
PU238	5.31E-003	9.09E-002	1.62E-002	3.46E-005
PU239	5.46E+001	3.38E+000	6.02E-001	1.29E-003
PU240	3.49E+000	7.92E-001	1.41E-001	3.02E-004
AM241	1.16E+000	3.97E+000	2.16E+000	9.64E-002
PU241	6.68E-002	6.88E+000	1.22E+000	2.62E-003
PU242	1.16E-002	4.60E-005	8.19E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.49E-007
U233	<LLD	<LLD	0.00E+000	8.15E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.40E-006
U238	<LLD	<LLD	0.00E+000	1.61E-005
AM243	1.59E-003	3.19E-004	5.98E-005	1.14E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 10-31-13

Automated Independent Technical Review

Count Sequence Number: 23743 Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68550
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/29/2013

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: 10-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68550**

BDR Number: **LA13FG2112**

Sampling Date: **11/4/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	212.12	
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\131104c\
Data File : 68550.D
Acq On : 4 Nov 2013 11:11 am (#1); 04-Nov-13, 11:10:39 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 11:19:19 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.552	96	4792935	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.858	117	3728265	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.620	GC1	1595m	212.12 ppmv	

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

S860096

S860096

Container Profile 770759

File Options Reports Help

S860096

770759	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

S860096

- S860096
  - 90927
    - LA00000069230 - WCS
      - LASB50072
    - LA00000069239 - EMPTY
  - 90930 - EMPTY
  - 90929
    - 92675 - EMPTY
    - 92674 - WIPP

Task History

Transfer Details

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

Working Copy
Date: 2-14-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S8600096

6.2[4] Date Processed: 2-14-12

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.: 619065
Cal. Due Date: 9-3-12

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

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

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

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

Performed By: Michael Romero Michael Romero B2723 2-14-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 415.6 lb

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

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S860096

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 415.6 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.	90927			
10.1[4]	Daughter Drum Filter No.	CL-1365		N	
10.1[4]	Daughter Drum Bag Filter No.	WO-1580		A	
10.1[4]	Daughter Drum Purchase Order No.	415090			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	NUCFil	NUCFil		
	Model No.	036 DA	036 DA		
	Serial No.	LL-115	LL-225		
	Date of Manufacture	12/11	12/11		
10.2[5]	POC ID No	90929			
10.2[7][B]/10.2[6]	POC Item Description	Salts plastic	salts plastics	N A	
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A		
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)	378.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	300			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead shielding			
10.3[5][A]	Free Liquid Volume/Units	2 gallons			
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[12]/ 10.5[5]	Daughter Drum % Full (%)	100%			
10.5[4]	Description Waste Added During Processing	plastic			

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S860096

Comments: plastic Lead Shielding, Salts, Liquids, in bags possible, acid Liquids

11.1[1] Performed By: Michael Romero / Michael Romero / 182723 / 2-14-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Anthony Vigil / Anthony Vigil / 184964 / 2-15-12
SOS/SOM (print) Signature Z # Date/Time

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

85-Gallon Overpack ID Number 90930

RECORD Drum Filter information: NUCF1-013	
Filter ID Number: GK-371	
Date of Manufacture: 7/10	

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	038373
Cal Expiration Date N/A		Cal Expiration Date	5-30-12
			13% cw
Tolerance		Tolerance	±6% ccw
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
		Bung Torque Wrench	
		M&TE ID# N/A	
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

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

Drum lid 2-inch bung torque value: (If applicable) _____ 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
Steven Mondragón	Steven Mondragon	SM	104741	2-14-12
Michael Romero	Michael Romero	MR	182723	2-14-12

Working Copy
Date: 2-2-12

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

Drum ID#: 90927

1. Drum/Lid Assembly

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

RECORD drum information:

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

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 3CPVC-1.5 25PVC
Serial #: WO-1580
Date of Manufacture: 6/11

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

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

4. Install Lid/Drum Filter

- [ ] 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 #: 019D3
Serial #: CL-1365
Date of Manufacture: 3/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9/12/12	Cal Expiration Date:	4/12/12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	+/-3% CCW +/-6% CCW	Tolerance:	+/-3% CCW +/-6% CCW

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

- [x] Yes
- [ ] No

Print Name: LM Montaño Signature: LM Montaño Z#: 085042

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: LM Montaño Operator Sign: LM Montaño Z#: 085042 Date: 2/2/12

Verifier Print: Michael Romero Verifier Sign: Michael Romero Z#: 182723 Date: 2-14-12

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

DRUM ID#: 90927

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions.

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: 5-30-12

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

Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 385.4

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: Don Pacheco Date: 02-14-12

Verifier Print/Sign: Michael Romero Date: 2-14-12

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S860096 Container Type: 85-GAL Gross Weight (lbs): 423
Inner Seal #: 021427 Filter Prefix: LAVC Filter Serial #: 00729; 02470
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS NITRATE SALTS MST 12 A0752
Total PE-Ci Activity: 3.02E+00 Equivalent Combustible PE-Ci: 1.13E+00 AM-241 PE-Ci: 2.45E-01
Total Fissile Gram Equivalents: 33.4 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/17/2007 Comment: Impenetrable Obj, Liner Not Punctured,
Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☑ VE ☐ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones / R. W. Jones / 117434 / 10.23.10
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: RTR pre-screen indicates impenetrable object and liner not punctured. Solid waste record indicates leached solids in form of nitrate salts. 16 items, heaviest item is 18 Kg (40 lbs); net weight is 114 Kg (251 lbs). May require RWP for >100 and <1,000 mrem/hr @ 30-cm.

Performed By: Michael Garcia / Michael Garcia / 099143 / 11/6/10
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

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

Performed By: C. Velarde / C. Velarde / 234079 / 10/26/10
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 021427

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	110X4W1		17.600	NITRATE SALTS		8.76	52	9/13	G468	
2	11LR7W1		7.590	NITRATE SALTS		1.48	52	9/13	G468	
3	110X4E1		2.450	NITRATE SALTS		0.42	52	9/13	G468	
4	11RR14W1		3.800	NITRATE SALTS		2.12	52	9/13	G468	
5	11RR14E1		2.650	NITRATE SALTS		0.66	52	9/13	G468	
6	11LR13W1		4.810	NITRATE SALTS		0.48	52	9/13	G468	
7	11LR13E1		5.450	NITRATE SALTS		0.66	52	9/13	G468	
8	110X15W1		9.790	NITRATE SALTS		1.62	52	9/13	G468	
9	110X15E1		9.160	NITRATE SALTS		1.26	52	9/13	G468	
10	11LR14W1		4.820	NITRATE SALTS		1.35	52	9/13	G468	
11	11LR14E1		14.720	NITRATE SALTS		4.32	52	1/13	G468	
12	11LR18E1		4.830	NITRATE SALTS		0.8	52	1/13	G468	
13	11LR18W1		2.460	NITRATE SALTS		0.06	52	1/13	G468	
14	11DS19E1		5.070	NITRATE SALTS		2.9	52	1/13	G468	
15	11DS19W1		4.800	NITRATE SALTS		2.53	52	1/13	G468	
16	110X21E1		13.600	NITRATE SALTS		6.01	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 191.8

Material Type	SNM (grams)	Items Net Wt (kg)
52	35.43	113.60
Totals	35.43	113.60

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 10.27.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	1237975	10-28-10
	/	/	/

Container No. (7.[1]):	S853068	S853838	S860096
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]):	S853068	S853838	S860096
Hydrogen Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 10.28.10
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

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

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

11.1[7][B]/ 11.1[8] Reviewed By: Kenny Romero [signature] 111766 / 11.4.10
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101027C\
Data File : S860096.D
Acq On : 27 Oct 2010 4:17 pm (#1); 27 Oct 2010 4:16 pm (#2)
Operator : EL
Sample :
LastName : Unit 8
Misc : 55 GALLON DRUM FROM 85 GALLON OVERPACKED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 27 16:24:47 2010
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	3.243	96	5883075	209.00	ppm	0.00
15) Chlorobenzene-d5	5.930	117	4876990	184.00	ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Wed Oct 27 16:24:54 2010

2-14-12 PROJECT NAME _____ NOTEBOOK NO. _____

0600 Assuming WCRR operations center - Tcolemar
0615 Beginning outside rounds.
0625 Pre-job being held on glove changes to be performed on stations 2(L) 4(L) 6(R) 8(R).
0640 Outside rounds complete. We will not be able to perform inside rounds until glove changes are complete.
0737 Beginning glove changes.
0754 All glove changes complete (Stations 2, 4, 6, 8).
0842 Beginning inside rounds.
0851 Permission granted to lower the vehicle access gates to begin to load transfer vehicle for shipment to Area G.
0900 Item #60 on the rounds is OOS. Per CSE we are okay to proceed.
0925 Vehicle access gates have been restored. Transfer vehicle loaded. Transportainer secured. TSD logbook updated. Both ~~tc~~ tc 2-14-12 rounds complete and reviewed by SOS.
0928 Mode change complete. We are now in operations.
1014 Bagging off drum #5863708 and 1 PCC, bagging on #5862411.
1027 Badly bag on complete. Beginning to de-nest 5 drums.
1055 De-nesting complete. Beginning to process.
1123 Permission granted to lower vehicle access gates to begin receipt of drums from Area G.
1150 Bagging off 5862411, bagging on 5860096.
1158 Shipment from Area G has been accepted. Vehicle access gates have been restored.
1200 Notified by Inventory control that on his printout of the data base (QA) it states to verify that the interior ~~limitt~~ tc 2-14-12 limit of 889 PE-Ci has not been exceeded by planned transfer. It should read 800 PE-Ci. SOM notified, who then notified OM and the owner of the spreadsheet.
1219 Notified by operators inside that they noticed the lead lined window on station #2 was broken and needs to be replaced.
1344 Initiating a drum movement from transportainer to S069.
1348 Drum movement complete.
1351 Operator 20 notified operations center of a High High pressure alarm on the WCG. Entered EPIC RR RMA ARP-011. SOM notified.
1354 Entering LCO's 3.0.1 (General) and 3.3.1 and 3.3.2
1358 OM notified
1410 FOD notified by SOM.
1412 DOE notified. Mister alarm acknowledged.
1422 Ventilation shut down.
1428 Ventilation restarted. All readings normal.
1446 ~~Per tc~~ 2-14-12 Further investigation identified operators

continued on next page. Tcolemar

SIGNATURE _____ DATE _____ 20 _____
READ AND UNDERSTOOD DATE 20

PROJECT NAME NOTEBOOK NO.

Continued from previous page - JColeman
2-14-12 introduced the glovebox window into the glovebox
introductory port and caused the High High alarm to
to be activated
1517 Initiating a drum movement from 5069 to a transportainer
1533 Late entry at 1428 all operational limits were met.
Exited LCO'S. JC
1547 Beginning outside rounds.
1555 Drum movement out of facility complete.
1602 Beginning inside rounds.
1623 Item #60 on the rounds is OOS. Per CSE, we are okay to proceed.
1631 Inside rounds complete.
1632 Bagging off 5860096 and 1 POC. Bagging on 5863696.
1650 Bag off complete. Did not bag on 5863696.
1700 Rounds retrieved by SOS.
JC 2-14-12 ~~170~~ Mode change complete, we are now in Warm standby.
1705 End of day. Operations secure. JColeman

No further entries this page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

0000 Received previous shift turnover and assumed the WCRR SOM. [illegible] SCA [illegible]
0040 Listened in on morning call in. WCRR is currently investigating contamination on glove box gloves. Operators will be going upside to change out gloves on stations #2 and #4 left glove and stations #6 and #8 right glove. The facility is currently in WARM standby.
0131 Reported by Operation Center that glovebox gloves are being to be changed out.
0154 Reported by Operation Center that glovebox maintenance is complete. A post job briefing will be conducted after all operators come out from process area.
0835 Post job briefing conducted to discuss contamination on glovebox gloves that occurred on 2-13-12. The following information was obtained Station #2 #4 Left gloves contained 1500 dpm thumpad on Station #2, Station #4 contained 5,000 dpm on the cuff. Station #6 right glove contained contamination on cuff and station #8 right hand contained 1500 dpm. Hand and swipes and smears were taken prior to operations on 2-13-12 and results were reported. Particle assay of concern for NDA would well disclosed, warning TMD for cuff area. Actions that will be taken are as follows: Transport gloves on a more routine basis and RCTs perform a more thorough inspection.
0928 Mode change complete. WCRR YARD and 50-09 from WARM mode to OPERATIONS.
1000 Walk down of WCRR foot print with AREVA operations. Machine shop operators want to move a large piece of equipment out of their building 50-54. They will schedule a time and date on when they will move equipment knowing they must provide WCRR footprint.
1025 Notified by Shift Operations Supervisor that transport vehicle is positioned in away from vehicle access gates. Operators did not bring down vehicle barriers. SOM notified P&T transportation personnel to come re-position vehicle prior to WCRR accepting shipment.
1050 P&T transportation came out and moved transport vehicle truck to positioned correctly. Operations will resume with off loading and accepting shipment.
1055 SOM reviewing maintenance schedule for upcoming weekend noted that UPS and concrete floor modification are both scheduled to work on 2-17-12. SOM called back Vail to get with maintenance supervisor to ensure

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

the ventilation is not going to be shut down during UPS maintenance. If UPS is going to work and ventilation needs to come down, the concrete floors will not be able to be worked.
1125 Dick Vail called back to SOM and inquired with maintenance supervisor that ventilation will not be shut down during preventive maintenance.
1300 Notified by Inventory control that on the print out of the database (CA) at status to verify that the interior transfer. It should read 800 pCi. SOM notified Spreadsheet owner and CSE. All agreed to proceed up written until a change is made to spread sheet. Procedure hasn't been violated. Procedure has correct values.
1320 Notified by operation center that they noticed that the upper lead lined window on station #2 is cracked and need to be re-placed.
1351 Notified by operation center that a high-high pressure alarm on the WRG was reported. ARP-0411 has been entered.
1354 Operation Center entered LCOs 3.0.1 general 3.3.1 and 3.3.2 per SOM.
1358 OM notified by SOM
1410 EOD notified by SOM.
1412 DOE notified by SOM.
1423 Ventilation was shut down per procedure. Probable cause of alarm was that the lead lined window was introduced through introductory port causing alarm to activate.
1428 Ventilation restored. All readings are normal. All operational limits were met, and LCOs were exited.
1530 DOE tour with Wan Cx. Entry up to Step off pad.
1700 Mode change complete. WCRR YARD and 50-09 from OPERATIONS to WARM mode.
1730 Securing the work SOM post shift [illegible]

no further entries

SIGNATURE [signature] DATE 2-14 20 12
READ AND UNDERSTOOD _____ DATE _____ 20__

250

PROJECT NAME WCRR SOS LOG-BOOK NOTEBOOK NO.

2-14-12

0615 Reviewed SOS Turnover Assuming SOS Position
0616 Pre-Job on Changing gloves
0630 Pre-Job on Changing gloves Concluded
0645 Starting Pre-Job on Processing Drums & Shipments.
0705 Pre-Job Concluded
0708 Outside Rounds Reviewed
0832 Starting Post Job on Glove Changes
0900 Post Job concluded
0925 Reviewed Rounds
0928 Mode CHANGE COMPLETE from warm to operation in Yard & Building
1030 Notified LANCE to come back to 50-69 & back up the truck more toward the vehicle barrier.
1031 LATE ENTRY AT 1015 Operators brought it to my attention that the transport truck was not backed up far enough to the vehicle barriers.
1218 Notified By operators that lead window inside glove box was cracked
1351 Operator inside notified of a high high pressure alarm on the WC6. Entered EP-WCRR-RM-ARP-0411
1354 Entering LCO's 3.0.1 & 3.3.1, 3.3.2
1358 On Notified
1410 FOD Notified
1412 DOE Notified
1422 Ventilation shut down
1428 Restarted ventilation
1700 Mode change complete Also reviewed Rounds
1705 End of DAY Securing WCRR SOS position.

Further Entries on this page

NO

SIGNATURE _____ DATE _____
READ AND UNDERSTOOD _____ DATE _____

Working Copy
Date: 1-23-13a

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 9092-9

6.2[4] Date Processed: 1-23-13

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] 267129 1-23-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90929

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 388.4 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) 388.4 lb

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

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

N/A

FWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90987

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92074			
10.1[4]	Daughter Drum Filter No.	SL-1238	N		
10.1[4]	Daughter Drum Bag Filter No.	L-6065		A	
10.1[4]	Daughter Drum Purchase Order No.	50011			
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)			A	
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:		N		
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	85%			
10.5[3]/10.6[2]	Description Waste Added During Processing	BAG OUT STUBS			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90929

Comments: ROOM TRASH, POC LIDS, PLASTICS, CARDBOARD, SALTS, KITTY LITTER

11.1[1] Performed By: BRIAN GALLEGOS [signature] 247129 1-23-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [signature] [signature] 149235 1.24.13 . 015
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.: 413659
Lot No.: 208849
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NoEFil
Model No.: 013
Serial No.: IL-47
Manufacture Date: 9/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	+/-4% cw +-6% ccw	+/-3% cw +/-6% ccw

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

Performed By: James Sandoval [signature] [illegible] 1-22-13
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/A

8.1[1] Performed By: James Sandoval [signature] [illegible] 1-22-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: G Martinez [signature] 149775 1-24-13
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.: 92675

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 0383667
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: ±3% as ±6% cal

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

Performed By: Brian Gallegos [signature] 1267129 1-23-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 323.4 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos [signature] 1267129 1-23-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: G. Martinez [signature] 149275 1-24-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92674

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 #: 50/011
Lot #: 0233370
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BCP
Model #: 6CPVA-1/G2-SFVC
Serial #: BC ~~L-4252~~ L-16065
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 #: 019 DS
Serial #: 32-1238
Date of Manufacture: 10-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	035367
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):	18-80
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: Clay M. Miller Signature: [signature] Z#: 240092

5. Weigh Drum Assembly

RECORD weight information

Tare wright (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: Brandon Gracz Operator Sign: [signature] Z#: 204742 Date: 1-9-13

Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: 247129 Date: 1-23-13

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

DRUM ID#: 92674

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 #: 938367

Cal expiration date: 3-16-13

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

Tolerance ±3% cw ± 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 231.4

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. Bailey Date: 1-23-13

Verifier Print/Sign: [illegible] Date: 1-23-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90929 Container Type: POC Gross Weight (lbs): 379

Container Seal #: None Filter Prefix: None Filter Serial #: EL-309; EL-61

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

TWSR Comments: PARENT #S860096 WTS-12STD-859

Total PE-Ci Activity: 1.51E+00 Equivalent Combustible PE-Ci: 5.66E-01 AM-241 PE-Ci: 1.23E-01

Total Fissile Gram Equivalents: 16.7 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007, D009 ll 10/2/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

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

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009 to Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan Ramsey Z Number: 166681 Date: 9/10/12

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: 69 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

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 10/2/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Heavyman gloves when processing waste in the glovebox. Do not puncture or press on waste.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Ensure kitty litter is bagged on with waste drum. Ensure proper ratio of kitty litter to waste is added

Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: Jose Jerez Z Number: 122452 Date: 10-4-12

LR Z# 249750 10/9/12

HS Review: RB 206362 10.3.12

Noncertified TRU Waste Drum Item Information

DrumID: 021427

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	11OX4W1		17.600	NITRATE SALTS		8.76	52	9/13	G468	
2	11LR7W1		7.590	NITRATE SALTS		1.46	52	9/13	G468	
3	11OX4E1		2.450	NITRATE SALTS		0.42	52	9/13	G468	
4	11RR14W1		3.800	NITRATE SALTS		2.12	52	9/13	G468	
5	11RR14E1		2.650	NITRATE SALTS		0.66	52	9/13	G468	
6	11LR13W1		4.810	NITRATE SALTS		0.46	52	9/13	G468	
7	11LR12E1		5.450	NITRATE SALTS		0.68	52	9/13	G468	
8	11OX15W1		9.790	NITRATE SALTS		1.62	52	9/13	G468	
9	11OX15E1		9.160	NITRATE SALTS		1.26	52	9/13	G468	
10	11LR14W1		4.820	NITRATE SALTS		1.35	52	9/13	G468	
11	11LR14E1		14.720	NITRATE SALTS		4.32	52	1/13	G468	
12	11LR18E1		4.830	NITRATE SALTS		0.8	52	1/13	G468	
13	11LR18W1		2.460	NITRATE SALTS		0.06	52	1/13	G468	
14	11DS19E1		9.070	NITRATE SALTS		2.9	52	1/13	G468	
15	11DS19W1		4.800	NITRATE SALTS		2.53	52	1/13	G468	
16	11DX21E1		13.600	NITRATE SALTS		6.01	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 191.8

Material Type	SNM (grams)	Items Net Wt (kg)
52	35.41	111.60
Totals	35.41	111.60

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9/28/12

Container No. (5.[1])	90979					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	117.74 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)), 237975 (Z #)

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

Comments: None

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

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

6.1[3] Performed By: SUSAN S. RAMSEY (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90929.D
Acq On : 28 Sep 2012 11:52 am
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 12:00:20 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.259	96	2511752	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2216889	179.50 ppm	0.00
Target Compounds					Qvalue
4) Methanol	0.788	31	27871	117.74 ppm	100

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

Vocgas.m Fri Sep 28 12:00:33 2012

1-23-13

0600 Assuming WCRRF operations center - CVelarde

0615 Pre job briefing being conducted by SOS.

0616 Starting outside rounds.

0620 Starting inside rounds

0638 Item 61 is OOS, POD in place, OK to continue

0641 Completed outside rounds.

0710 Inside and outside rounds signed off by SOS.

0825 Permission granted to lower vehicle access gates to start loading ~~vehicle access gates~~ CV 1-23-13 transport vehicle.

0904 Vehicle access gates have been restored. movement ~~comp~~ CV 1/23/13 complete to transport vehicle.

1000 Mode change performed TA50-69 and WCRRF yard now in operations.

1005 Inventory control having problems with labels. Contacting warehouse

1007 Permission granted to lower vehicle access gates to begin off loading of transport vehicle.

1125 ASSUMING OPERATIONS CENTER DUTIES UNDER THE OJT INSTRUCTION OF CLARISSA VELARDE OCO OSE - B. Fordham

1126 BAGGING ON DRUM # 90886

1136 BAG-on of # 90886 complete

1137 PPE CHECK INSIDE FACILITY IS complete

1158 RCT'S HAVE PAUSED WORK INSIDE THE FACILY, OPERATORS HAVE INFORMED THE SOS THAT DRUM # 90886 HAS POTENTIAL CRYSTALIZATION, ES IH WILL MAKE A DETERMINATION TO CONTINUE WORK.

1205 WORK HAS COMENCED PER IH EVALUATION

1215 OPERATORS ARE BAGGING OFF 1 DAUGHTER AND 1 POC, AND BAGGING ON DRUM # 90929.

1255 BAG ON Complete

1300 OPERATORS' COMING OUT OF FACILITY FOR LUNCH

1302 ENGINEERS ENTERING FACILITY TO SCOPE WORK FOR DRUMLIFT

1305 TURNING OVER OPERATIONS CENTER TO CLARISSA VELARDE.

~~BVelarde~~ 1-23-13 Shift turnover never performed B Fordham was under instruction OCO position still required under CVelarde.

Continued on ~~page~~ CV 1-23-13 next page - CVelarde

1-23-13 Continued from previous page checklist

1330 Vehicle access gates have been restored, transport vehicle has been unloaded, movement is complete

1400 Operations continuing with operations. PPE check is set

1500 bagging off 90929, bagging on 90969

1507 Starting movement into ST-69.

1514 movement into ST-69 is complete

1520 bagon, bagoff complete.

1524 Starting inside rounds

1528 PPE check is set

1538 Item (a) OOS, POD in place, OK to continue with rounds

1551 Starting outside rounds

1555 Completed inside rounds., PPE check is set.

1605 Outside rounds complete

1609 bagging off 90969, bagging on 90957

1610 1611 1-23-13 Inside and outside rounds signed off by RSO

1625 bagon, bag off complete. PPE check is set

1704 bagging off 90957

1733 bag off is complete.

1740 Starting movement out of ST-69

1744 Made change personnel TPMT left and a new joined due to be on standby.

1750 1755 1-23-13 Completed movement out of ST-69

1-23-13 1755 end of day in RCF Operations center. Shift checklist

1-23-13

see other entries this page

1/23/15

0700 Assumed the WCRR SOM position and received the
Plenum Shift Turnover. (Signature) (Signature)
0615 Attended the PROB briefing conducted by SOS Som
discussed importance of SOS being aware of not
allowing employees to execute work hours pts
conduct of operations.
0645 SOM attending mandatory lil hawk's meeting at the
NSSB auditorium.
0955 SOM arrived back from meeting
1000 Mode change complete. WCRR YARD / 50 ug from
WARM/WARM to OPERATIONS/OPERATIONS
1002 Call in with TASK SOM. Status WCRR and
DVS was stated as well.
1100 Noted by SOS that inventory control is having problems
printing shipping labels. A request to WCATS will be submitted
1158 Notified by OCO that RP-1 paused work inside
due to a patent drum containing crystal like substance.
Energy Solutions SH en route to investigate.
1305 Energy Solutions SH deemed crystal like substance
to be frozen salts. Drum had been re-mediate at WCRR
before and is from SP #72. SH deemed drum safe
to work. Operations resumed.
1255 CSE S. West going into 50 ug to secure drum lift
Operations processed 4 patients resulting in 4 daughters
1745 and 1 POC.
1755 Mode change complete. WCRR YARD / 50 ug from
OPERATIONS/OPERATIONS to WARM/WARM.
1830 Securing the WCRR SOM position. (Signature)

No further entries this page

(Signature)

1/23 13

1-23-13 WCKK SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted Shift brief EP-WCKK-RM-NOP-0202.R3 And EP-DIV-DOP-20086.R1. Also talked About Fatigue.

0645 Concluded Shift brief Operators Attending All Hand Meeting

0710 Reviewed Inside And outside Rounds

0955 Personal back from All Hand meeting

1000 Mode Change Complete WCKRF In operations.

1005 Inventory Control notified that they are bagging Issues with label maker (Shorties) Contacted waste help on Issue

1126 bagging on first drum of day labels will be printed to TA 46 Drum # 90886 PPE check sat.

1-23-13 1137 PPE Check

1158 RCT have paused work In facility Drum 90886 has Potential Chrystalization ES IA making Determination

1205 OK to Proceed Per IA

1225 bagging off and bagging on 90925

1300 Operators breaking for lunch

1400 Operators entering facility From lunch

1500 Bagging off and bagging on ~~90966~~ 90965 GM 1-23-13

1528 PPE Check

1604 Bagging on And bagging off. Bagged on 90957

1606 Inside And outside Rounds Reviewed ~~90957~~ GM 1.23.13

1704 Bagging off last drum of day.

1755 Mode Change Complete WCKRF In warm

1-23-13 1830 end of shift Securing SOS Position [illegible] on

RLG

No further entries on this Page

S8600096

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0041
Examination Date:	3/9/2013
Waste Container ID:	92674
Video/Audio Recorded Media Number:	LA-RTR2-13-0041 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 105.0 kg Tare Wt.: 33.4 kg Net Wt.: 71.6 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: 92674

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):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	39.6
Soils (S):	
Total WMP Weight:	71.6

CCP Radiography Data Sheet

Waste Container ID: 92674

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

Comments: N/A

RTR Operator:

Michael Simmons		3/9/2013
Print Name	Signature	Date

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

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

Item ID:            92674              Count Sequence Number:  22298
Operator:           D3PW2DK1\operator
Assay Start:        3/15/2013   3:54:57 PM
Description 1:      1LANDA1732
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6, Not Precision
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:        71.6   kg     ·   Net:    71.6 kg
Container:          Volume:    208.0   l        Full:    60.0 %
Density:                         0.570 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:	22298	Batch Number:	1LANDA1732
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:	92674	Analysis Date:	3/15/2013

Net Weight	71600.0 g		
Pu mass	1.01E+001	+-	1.56E+000 g
TRU Alpha Activity	1.98E+000	+-	6.68E-001 Ci
TRU Activity Concentration	2.77E+004	+-	9.32E+003 nCi/g
Pu-239 Equivalent Activity	2.01E+000	+-	6.68E-001 Ci
Pu-239 FGE	9.54E+000	+-	1.46E+000 g
Decay heat	6.45E-002	+-	2.23E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.22E-002	3.02E-005	4.97E-006	1.61E-006
PU238	9.29E-004	1.61E-002	2.48E-003	3.38E-005
PU239	9.49E+000	5.97E-001	9.21E-002	1.26E-003
PU240	6.07E-001	1.39E-001	2.15E-002	2.93E-004
AM241	3.54E-001	1.23E+000	6.61E-001	3.99E-002
PU241	1.20E-002	1.24E+000	1.92E-001	2.62E-003
PU242	2.02E-003	8.03E-006	1.24E-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	3.44E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.03E-006
U238	<LLD	<LLD	0.00E+000	8.46E-006
AM243	5.95E-004	1.20E-004	2.01E-005	4.72E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 3.18.13

ITR: [signature] Date: 3/18/13

Automated Independent Technical Review

Count Sequence Number: 22298 Batch Number: 1LANDA1732
Counter ID: MCS HENC #1
Container ID: 92674
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
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: 3-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92674**

BDR Number: **LA13FG2032**

Sampling Date: **3/28/2013**

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	47.89	
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\130328c\
Data File : 92674.D
Acq On : 28 Mar 2013 10:53 am (#1); 28-Mar-13, 10:53:00 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 28 12:23:25 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.565	96	5039750	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.900	117	4087044	177.00	ppmv	0.00
Target Compounds						Qvalue
4) Methanol	0.831	31	24379m	47.89	ppmv	

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

ATTACHMENT 1
Page 1 of 4

Working Copy
Date: 1-17-14

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90927

6.2[4] Date Processed: 1/17/14

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10/14/14

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

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

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
JQ 1-17-14 ☑ YES ☑ NO ☐ N/A

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

Performed By: JOE QUINTANA, Joe Z 239987, 1/17/14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 909217

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 388.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 22.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 410.6 lb

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

6.2[17][D] Drum lift hinge pin retaining clip replaced. ~~[illegible]~~ / N/A / ~~[illegible]~~
Initials Z# Date

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

JOHN GUADAGNOLI / [signature] / 125695 1-17-14
EWMO-FOD (print) per Telecon with Lou Talbert LOG Entry made Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90927

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69230			
10.1[4]	Daughter Drum Filter No.	JL 813		N	
10.1[4]	Daughter Drum Bag Filter No.	L 12768		A	
10.1[4]	Daughter Drum Purchase Order No.	501892			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)			A	
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units		N		
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		A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	N		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90927

Comments: LEAD, PLASTICS, SALTS, KITTY LITTER
Hex ARMOR gloves. permission from OM to leave drum bagged on overnight.

11.1[1] Performed By: Joe Quintana, Joe Q, 239987, 1/16/14
Waste Handling Tech (print) Signature Z# Date

11.1[8] Reviewed By: Clayton Mullins, CM, 240092, 1/19/14 0816
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 1-16-14(a)

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	501893
Lot No.:	02 444 38
Manufacture Date:	13

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

	Filtered Vent	2-in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	8/5/14
Tolerance:	+/- 4% CW and +/- 6% CCW	+/- 3% CW and +/- 6% CCW

Overpack filtered vent information:

Manufacturer:	Nuc FIL
Model No.:	013
Serial No.:	HL 860
Manufacture Date:	8/11

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

5. [11] Performed By: Brandon Chavez / [signature] 1204702 / 1-16-14
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: n/c

8.1[1] Performed By: Brandon Chavez / [signature] 1204702 / 1-16-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 1240092 / 1/19/14
Supervisor or designee (print) Signature Z # Date

1-18-14 JC

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69239

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: C38370
Cal. Expiration Date: 8/2/14
Range in ft-lb: 16-80
Tolerance: +/- 3% CW
+/- 6% CCW

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

Performed By: JOE QUINTANA, Joe Q 239987 1/18/14
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): 224.2 lb

Comments: N/C

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

8.1[7] Reviewed By: Clayton Mullins, CM 240092 1/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1-15-14 a

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69230

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CNC 15.2 SPVC
Serial No.: L-12768
Manufacture Date: 7/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	8-5-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% cw +/-6% ccw	+/-3% cw +/-6% ccw

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

Performed By: Federico Rodriguez [signature] 1228826 1
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NucCil
Model No.: 019 DS
Serial No.: JL-813
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): 74 lbs

5.[34][E] Drum ID No.: 69230

Comments: N/C

5.[35] Performed By: RUSSELL SHUMAKER / GERALD BANOZA — Operator (print) — Signature — Z # 212073 / 1237720 — Date 1-15-14 / 1-15-14

7.1[4] Reviewed By: Clayton Mullins — Supervisor or designee (print) — Signature — Z # 240092 — Date 1/19/14

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69230

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 349.0 lbs

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

Comments: NIL

6.[32] Performed By: JOE QUINTANA / [signature] / 239987 / 1/18/14
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240092 / 1/19/14
Supervisor or designee (print) / Signature / Z # / Date

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET (72a)

WCRRF Rem -

Planning and Technical Solutions

Container ID: 90927 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 385.4
Total PE-Ci Activity: 1.49E+00 Equivalent Combustible PE-Ci: 3.73E-01
Total Fissile Gram Equivalents: 1.67E+01 Total Surface Dose Rate (mrem/hr): 31
EPA Code(s): D007A; D008A; D009B

Waste Description: LA-MHD01.001 Fuels RIR PS. Nitrate Salts identified >50% HOM.
LA HB-RTR-13-004 75% full - 2 layers of confinement.

Remediation/Characterization Activities: Nitrate Salts identified during RIR PS. >50% HOM Waste. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.
Ensure EPA codes D007 D008 & D009 are indicated on the Haz Waste label.

Potential Safety Risks: Nitrate Salts drums often contain free liquids and are packed in individual bags. Net wt is 191.8 kg, 116 items of nitrate salt identified on generator records, ranging from 2.46 kg to 17.6 kg.

Performed By: Richard Trujillo (LTP-PTS (Print)) | Signature | 167341 (Z#) | 12/12/13 (Date)

IHS Representative

Potential IHS Safety Risks: Inhalation. Use engineered ventilation controls and/or Full Face APR or PAPR. Skin contact: double nitrile gloves for handling

Performed By: Russell Stone (IHS Representative (Print)) | Signature | 117865 (Z#) | 1/7/14 (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 | 112129 (Z#) | 1/8/14 (Date)

TRU Remediation Operations

Potential Safety Risks: Use proper ratio of kitty litter to waste in accordance with the procedure. Do not push or press on waste with hands. Use hexamanus when processing.

Performed By: Jose Jerez (TRU Operations (Print)) | Signature | 1221452 (Z#) | 1/14/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

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

Approved By: Derret L. Blain (OM or designee (Print)) | Signature | 1218069 (Z#) | 1/15/14 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 021427

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	110X4W1		17.600	NITRATE SALTS		8.76	52	9/13	G468
2	11LR7W1		7.590	NITRATE SALTS		1.48	52	9/13	G468
3	110X4E1		2.450	NITRATE SALTS		0.42	52	9/13	G468
4	11RR14W1		3.800	NITRATE SALTS		2.12	52	9/13	G468
5	11RR14E1		2.650	NITRATE SALTS		0.66	52	9/13	G468
6	11LR13W1		4.810	NITRATE SALTS		0.48	52	9/13	G468
7	11LR13E1		5.450	NITRATE SALTS		0.66	52	9/13	G468
8	110X15W1		9.790	NITRATE SALTS		1.62	52	9/13	G468
9	110X15E1		9.160	NITRATE SALTS		1.26	52	9/13	G468
10	11LR14W1		4.820	NITRATE SALTS		1.35	52	9/13	G468
11	11LR14E1		14.720	NITRATE SALTS		4.32	52	1/13	G468
12	11LR18E1		4.830	NITRATE SALTS		0.8	52	1/13	G468
13	11LR18W1		2.460	NITRATE SALTS		0.06	52	1/13	G468
14	11DS19E1		5.070	NITRATE SALTS		2.9	52	1/13	G468
15	11DS19W1		4.800	NITRATE SALTS		2.53	52	1/13	G468
16	110X21E1		13.600	NITRATE SALTS		6.01	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 191.8

Material Type	SNM (grams)	Items Net Wt (kg)
52	35.43	113.60
Totals	35.43	113.60

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 12/19/2013

Container No. (5.[1])	90927	83939	65220	65201	5845063	
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal drum	55 gal drum	55 gal drum	55 gal drum	55 gal drum	N/A
Filtered Vent Type (5.[1])	019-DS	019-DS	019-DS	019-DS	019-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])	419.78 ppm	726.25 ppm	467.81 ppm	412.52 ppm	383.25 ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	295.25 ppm	0 ppm	0 ppm	0 ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	0 ppm	0 ppm	0 ppm	0 ppm	ppm

5.[7] Certified CCP Technician:

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

Reviewed By: Erik Loechell / 234183
CCP (Print) Z#

Comments:
— none —

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

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

6.1[3] Performed By: Barbara Trujillo / 167341 / 1/6/2014
Waste Handling Operator (print) Signature Z# Date

72

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131219c\
Data File : 90927.D
Acq On : 19 Dec 2013 12:22 pm (#1); 19-Dec-13, 12:22:01 (#2)
Operator : SA
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED 019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 13:58:25 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	3.535	96	3259830	205.75	ppmv	0 02
15) Chlorobenzene-d5	5.845	117	2577690	177.50	ppmv	-0 02
Target Compounds						Qvalue
4) Methanol	0.886	31	9515	36.53	ppmv	100

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

VOCGAS.M Thu Dec 19 13:58:41 2013

7-14
-55 Assuming WCRR operations center. KOleman
00 Beginning outside rounds.
0617 Beginning inside rounds. Pre-job being conducted by SOS.
0634 Outside rounds complete.
0636 Pre-job concluded.
0642 Inside rounds complete.
0655 Both rounds reviewed by SOS.
0703 mode change complete. We are now in operations in WCRRF yard and 5049.
0719 OM states he cancelled the crosby clips maintenance that was to be performed on the vehicle barrier today.
0728 Notified pest control regarding the mouse droppings in the morgan where supplies are kept.
0802 Operators denesting 2 drums, then bagging on.
0910 Denesting complete. Operators bagged on S844253.
0941 Permission granted to lower the vehicle access gates to
1043 begin receipt of drums from area G.
1043 Bagging off 1 daughter and 1 PCC, bagging on another daughter
1048 Vehicle access gates restored. Shipment accepted. Tanportainer secured.
1113 Bag off/on complete. PPE check is Sat.
1210 Bagging off 1 daughter, bagging on S813655.
1240 Bagoff/on complete. PPE check is Sat.
1412 Bagging off 1 daughter, bagging on another daughter.
1428 Bagoff/on complete.
1446 Initiating a drum movement from 5049 to a tranportainer.
1500 Drum movement out of 5049 complete.
1605 Beginning inside rounds.
1606 Late entry at 0640, item 63 OOS, Okay to proceed. (JC)
1622 Item #63 is OOS, Okay to proceed per CSE documentation.
1632 Inside rounds complete.
1640 Beginning outside rounds.
1642
1708 Bagging off 2 daughters, bagging on 90927.
1718 Outside rounds complete.
Bag off/on complete. Operators report an elevated CAM.
Continued on next page KOleman

1-17-14 Continued from previous page. JColeman
1722 Operators report CAM reading normal now.
1748 Both rounds reviewed by SOS.
1759 Received permission from OM to leave drum #90927 bagged on overnight. Everything is in a safe configuration.
1811 Mode change complete, we are now in Warm Standby in WCRRF yard and 5069.
1-17-14 1830 End of day. OCO position secured. JColeman

No further entries this page

1-18-14
0600 Assuming WCRR operations center. JColeman
0612 Beginning outside rounds.
0630 Outside rounds complete.
0640 Beginning inside rounds.
0654 Item #6386005, PoD in place, okay to proceed per CSE documentation
0705 Inside rounds complete.
0725 Both rounds reviewed by SOS.
0728 Mode change complete. We are now in operations in WCRRF and 5069.
0845 Bagging off 1 daughter, bagging on S861980.
0914 Bagoff/on complete. PPE check is Sat.
1000 Initiating a drum movement from 5069 to a transportainer.
1024 Drum movement out of 5069 complete.
1030 Bagging off 1 daughter, bagging on another daughter. PPE check is Sat.
1050 Bagoff/on complete.
1138 Bagging off 1 daughter, bagging on S813513. PPE check is Sat.
1205 Bagoff/on complete.
1224 Operators out for lunch.
1357 Initiating a drum movement from transportainer to 5069. and 5069 to a transportainer. JC 1-18-14.
1410 Drum movement complete.
1502 Bagging off 1 daughter, bagging on another daughter. PPE check is Sat.
1524 Bagoff/on complete.
1553 Beginning inside rounds.
1614 Item #6386005, PoD in place, okay to proceed per CSE documentation
1617 Inside rounds complete. Beginning outside rounds.
1635 Bagging off 1 daughter, bagging on another daughter.
1640 Outside rounds complete.
1647 Both rounds reviewed by SOS.
1648 Late entry at 1337, operators back from lunch JC
1717 Bagging off 1 daughter, placing port cover on.
1748 Bagoff complete.
1807 Mode changed from ~~Warm~~ operating JC 1-18-14 to warm in yard + 5069.
1830 End of day. OCO position secure. JColeman
No further entries this page JColeman

1-17-14 WCRR SOM

0558 Reviewed shift turnover checklist and logs and assumed the WCRR SOM position film Guadagnoli

0638 Completed attending the pre-job brief conducted by the SOS (Clayton)

0638 ES/IH discussed the safety topic of the day chemical storage at work and at home. There is a transfer scheduled into WCRRF - 9 drums total. Film crew is to arrive around noon and film personnel exiting facility. Shift orders in effect were discussed. Maintenance are to install crosby clamps - we will monitor mode change with crafts. Operations are requesting straps for de-nesting 1"x 10' and if unable to locate, will notify Mr Vigil.

0708 Completed morning phone call with AREA G, statusing WCRRF - POD

0714 The OM consults crafts on installation of crosby clamps

0719 Late entry for 0703 - Mode Change 50/65 and cyard transition from WARM/WARM to Operations/Operations

0728 DCO notifies Pest Control of dropping with the Morgan.

0802 Inside operations initiate denesting of two drums current inside temperature is 64°F

0801 Conducted walkdown of Vehicle Barrier gate and marked the gate with grey tape on where the 3 crosby clips are to be attached.

0810 Operations complete the de-nesting and bag on of Parent drum 5844253 SP-72

0830 Completed working with the procedure writer on comments for DOP-1197 in which the DID number is DOP-0236. Also PT Passives for transfer of 9 drums from Area G.

1042 Inside operators report initiating bag off of 1 daughter and 1 PEC and bagging on another daughter and continue to process.

1050 The transfer of 9 drums into WCRRF from AREA G was completed.

1113 Inside operators complete bag off and bag on of the daughters.

1210 Operators initiate bag off and bag on of Parent 5813655 - SP-57

1240 Bag off noted completed, and the photographer is positions for operators to switch for lunch and continue to operate.

1412 Inside operators report bagging off 1 daughter and bagging on another, and continue

1424 Operators report bag off and bag on completed.

1446 Outside operators initiate movement from facility to transportainers, Also Riv-nut replacement tool and electric impact wrench were secured for SWB arrival Tuesday by ES and they prep for Area G

1525 Completed sign off of EP-AREAG-WO-DOP-1085 R2 IPC 2 - to allow procedure writer to submit to USQ - all comments from disciplines were incorporated.

1642 Inside Operators initiate bag off off 2 ~~Drum~~ 1-17-14 and bag on of Parent 90927

1718 Bag off anon completed RCT noted elevated CAM.

1722 CAM Reading was reported normal.

1745 Reviewed Rounds and RERA to ensure completed

(Continued on Next Page)

1-17-14 WCRR SOM (continued)

1750 Obtained update from AREA 6 SOS working Dome 224. Noted 4 parents generated 4 daughters.
1759 Obtained approval from the OM to allow WCRR Operations to leave Parent 90927 bagged on overnight, the WCG is in a safe configuration.
1809 Inside temperature in 50/69 is noted at 65°F the setpoint is at 77°F
1811 Mode change: 50/69 and yard transition from Operations/Operation to WARM/WARM
1818 Secured the SOM position John Guadagni

No further Entries this page
RCH

1-18-14 WCRR - SOM

0558 Reviewed logs and assumed the WCRR SOM position John Guadagni
0627 Completed attending the pre-job brief conducted by Clayton the SOS, The Safety Topic was Carbon Monoxide Poisoning especially in winter months when letting cars warm up. SOS reviewed current status with 1 drum currently bagged on and ready to work. Current shift orders were reviewed.
0725 Rounds were completed and reviewed.
0728 Mode Change: 50/69 and yard transition from WARM/WARM to Operations/Operations.
0749 Initiated merge of Dome 224 work - prep empty's and filter/change out repack - SOT SOB - work to be conducted this afternoon (P. Brady) AREA 6 - SOM. - approved
0758 Discussed with operators in 50/69 contents of current drum bagged on, No liquids noted.
0801 Inside temperature is at 65°F and the setpoint is at 77°F
0838 Inside PIC requests to turn down the thermostat to 67°F, approved.
0846 Inside Operations initiate bag off of daughter generated from Parent 90927 and bag on of Parent SB61980 - SF.72.
0914 PIC informs OCO, that bag on and bag off is completed.
1001 Outside operators initiate a movement out of 50/69 to the transportainers.
1018 Outside operators complete move to the transportainers - 6 drums total.
1030 Inside operators report bagging off 1 daughter and bagging on another.
1137 Operations report bagging off 1 daughter and 1 Parent and bagging on Parent SB13513 - SF.21
1215 Operators complete bag off and bag on
1225 Operator exit facility 50/69 to initiate lunch break
1335 Operators enter 50/69 to start processing
1400 Operations initiate a movement into 50/69 2 drums (Parents total)
1410 Entry into 50/69 is noted completed
1456 Operations report SB19513 SF.21 is noted as 1.55 gallon bag of sludge typer material - low dose.
1501 Inside Operations initiate bag off of 1 daughter and bag on of another and continue to process.
1524 Bag off of daughter is noted completed
1634 Operators initiate bagging off 1 daughter and bagging on another daughter.
1657 Inside operators report bagging off/on completed.
1717 Inside operators initiate bag off of daughter and parent and will place port cover on WCG
1748 Bag off completed, port cover is in place and the WCG is in a safe configuration.
1754 Completed review of 7 work packages and updated with current RWP
1807 Mode Change: 50-69 and yard transition from Operation/Operation to WARM/WARM
1813 Ensured inside temperature is set at 77°F. Reviewed rounds and RCRA completed
1818 Secured the WCRR SOM position John Guadagni

(no further entries this page)

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

1/17/14
0600 Assuming SOS position. CT
0615 Starting Pre-Job, discussed proper storage with all tools, equipment, chemicals. With heavy drums ensure the load capacity is not being violated.
0638 Pre-Job complete.
0655 Signed off on the rounds.
0703 Mode change complete, WCRRF yard and 50-69 are now in Operations.
0802 Starting to denest 2 drums.
0910 Denesting and bag on complete, 5844253.
0941 Starting to recieve shipment into WCRRF.
1043 Bagging off 1st daughter, bagging on a 2nd.
1048 Shipment in complete.
1113 Bag off/on complete, also bagged off a POC.
1215 Bagging off 2nd daughter, bagging on 5813655
1240 Bag off/on complete.
1412 Bagging off 1st daughter, bagging on a 2nd.
1428 Bag off/on complete.
1446 Starting movement out of 50-69.
1500 Movement out complete.
1642 Bagging off 2nd and 3rd daughters, bagging on 90927.
1718 Bag off/on complete. Slightly elevated CAM, unable to depost.
1722 CAM's readings back to normal.
1748 Signed off on the rounds.
1759 Permission from OM to leave drum on overnight.
1811 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.
1/17/14 1819 Securing SOS position. CT
RIA

No Further Entries on this Page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

1/18/14
0600 Assuming SOS position. CA
0615 Starting Pre-Job, discussed watching for signs of carbon monoxide poisoning.
0635 Pre-Job complete.
0725 Signed off on the rounds.
0728 Mode change complete, WCRRF yard and 50-69 are now in Operations. continuing to process drum left on over night.
0846 Bagging off, bagging on 5861980.
0914 Bag off/on complete.
1000 Starting movement out of 50-69.
1024 Movement out complete.
1030 Bagging off 1st daughter, bagging on a 2nd.
1050 Bag off/on complete.
1138 Bagging off 2nd daughter, bagging on 5813513.
1205 Bag off/on complete.
1357 Starting movement into 50-69.
1410 Movement in complete.
1502 Bagging off 1st daughter, bagging on a 2nd.
1524 Bag off/on complete.
1635 ~~1550 Starting~~ 1-18-14 Bagging off 2nd daughter, bagging on a 3rd.
1647 Signed off on the rounds.
1654 Bag off/on complete.
1717 Bagging off 3rd daughter to complete processing
1748 Bag off, complete.
AB 1807 Mode change complete, WCRRF yard and 50-69 are now in Operations.
1-18-14 1812 Securing SOS position. CA
AB

No Further Entries on this Page

SIGNATURE DATE

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:	69230
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:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 158.0 kg Tare Wt.: 33.4 kg Net Wt.: 124.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 69230

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):	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):	1.5
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):	123.1
Soils (S):	
Total WMP Weight:	124.6

CCP Radiography Data Sheet

Waste Container ID: 69230

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: 69230 Count Sequence Number: 16876
Operator: DCLTD231\Operator
Assay Start: 1/24/2014 12:50:16 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: 125.0 kg Net: 125.0 kg
Container: Volume: 208.0 l Full: 95.0 %
Density: 0.630 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

023
CD 6/17/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16876	Batch Number:	2LANDA1256
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69230	Analysis Date:	1/24/2014

Net Weight	125000.0 g		
Pu mass	3.31E+001	+-	6.61E+000 g
TRU Alpha Activity	6.22E+000	+-	8.54E-001 Ci
TRU Activity Concentration	4.98E+004	+-	6.83E+003 nCi/g
Pu-239 Equivalent Activity	6.29E+000	+-	8.54E-001 Ci
Pu-239 FGE	3.19E+001	+-	6.21E+000 g
Decay heat	2.02E-001	+-	2.80E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	9.58E-002	6.76E-005	1.17E-005	1.37E-006
PU238	3.02E-003	5.17E-002	1.03E-002	3.50E-005
PU239	3.11E+001	1.93E+000	3.85E-001	1.31E-003
PU240	1.99E+000	4.51E-001	9.00E-002	3.06E-004
AM241	1.11E+000	3.79E+000	7.57E-001	2.57E-003
PU241	3.76E-002	3.87E+000	7.73E-001	2.63E-003
PU242	6.63E-003	2.62E-005	5.23E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.18E-007
U233	<LLD	<LLD	0.00E+000	6.02E-003
U234	1.49E-002	9.26E-005	2.07E-005	0.00E+000
U235	1.06E+000	2.30E-006	5.13E-007	1.59E-006
U238	<LLD	<LLD	0.00E+000	1.41E-005
AM243	1.35E-003	2.71E-004	4.72E-005	8.38E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6-9-14

ITR: [signature] Date: 6.10.14

024
CD 6/9/14

Automated Independent Technical Review

Count Sequence Number: 16876 Batch Number: 2LANDA1256
Counter ID: HENC #2
Container ID: 69230
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/24/2014

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; 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.

025
CS 6/17/14

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

Expert Review by: Bart B. Marah Date: 6/9/14

026
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: **69230**

BDR Number: **LA14FG12017**

Sampling Date: **2/3/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	107.87	
74-82-8	Methane	6.56	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\140203c\
Data File : 69230.D
Acq On : 3 Feb 2014 3:22 pm (#1); 3 Feb 2014 3:21 pm (#2)
Operator : DE
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 03 15:26:36 2014
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.917	GC1	30771m	107.87	ppmv	

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

S861975

S861975

Container Profile 754114

File Options Reports Help

S861975

754114	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

Genealogy

S861975

- S861975
  - LA00000068480
  - LA00000068511
  - LA00000068485 — EMPTY

Working Copy
Date: 10-22-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S861975

6.2[4] Date Processed: 10-22-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: GERALD ESPINOZA / [signature] 231720 / 10-22-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S861975

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 325.0 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 325.0 lb

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

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A / /
Initials Z# Date

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S861975

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68480			
10.1[4]	Daughter Drum Filter No.	LM 297		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-6796			
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	BOP			
	Model No.	LCPVC1.5-2APL			
	Serial No.	L-10288			
	Date of Manufacture	5-13			
10.2[5]	POC ID No	68511			
10.2[7][B]/10.2[6]	POC Item Description	LEAD GLOVE			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	GE 237720			
10.2[14]	POC Assembly Gross Weight (lb)	354.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	801.0		N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	1 quart			
10.3[5][A]	Free Liquid Volume/Units	2 GAL			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS			
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.: S861975

Comments: Kitty Litter, plastic, liquid, NITRATE SALTS,

11.1[1] Performed By: GERALD ESPINOZA [signature] 1231720 / 10-22-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins [signature] 1240092 / 10/22/13 1632
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-26-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: SL-911
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: Frederico Arbolado / [signature] 122[illegible] 9-26-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Frederico Arbolado / [signature] 122[illegible] 9-26-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 124[illegible] 10/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-22-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68485

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERALD ESPINOZA [signature] 237120 10-22-13
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): 164.4 lb

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA [signature] 237120 10-22-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins [signature] 240091 10/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-24-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68480

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC-1.5-2 SPVC
Serial No.: 6-6796
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	+-4% cw +-6% ccw	+- 3% cw +-6% ccw

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

Performed By: Frederick Bechler / [signature] 1228824 / 9-26-13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019 DS
Serial No.: LM-297
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.: 68480

Comments: N/C

5.[35] Performed By: Frederick Bachelor / [signature] 1228824 9-26-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 240092 10/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-22-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68480

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: GERALD ESPINOZA / [signature] / 237720 / 10-22-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA / [signature] / 237720 / 10-22-13
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68480

6.[26] Scale File ID number: 0190165

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

6.[28] Drum gross weight: 395.0 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: GERALD ESPINOZA [signature] B7772d 10-22-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [signature] 1240096 10/22/13
Supervisor or designee (print) Signature Z # Date

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

19 38 SP72

Production Control

Container ID: S861975 Container Type: 55-GAL Gross Weight (lbs): 333
Inner Seal #: 020324 Filter Prefix: LAVC Filter Serial #: 01167
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0757
Total PE-Ci Activity: 4.36E+00 Equivalent Combustible PE-Ci: 1.64E+00 AM-241 PE-Ci: 3.54E-01
Total Fissile Gram Equivalents: 48.2 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/12/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured Liquid Location: 25"
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 / Jon P. Ray / 100681 / 12/20/12
Production Control (Print) / Signature / Z Number / Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 273# Generator info shows 9 items of nitrate salts; weights range from 3-28#. No RTR/BDR. Nitrate salts are typically packaged in plastic bags; undocumented liquids &/or debris may be present. RTR PS shows prohibited liquids & impenetrable item(s) and unpunctured liner. No chemicals identified; applicable waste codes are for chromium lead & mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/17/13
WDP Engineering (Print) / Signature / Z Number / Date

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Dont push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And Kitty Litter Ratio

Performed By: GMR / [signature] / 149235 / 6/20/13
TRU Remediation Operations (Print) / Signature / Z Number / Date

6-22-13 Jose Jerez / Jose Jerez / 221452 / 6/22/13

IHS Review only Ambient CSP, may contain Pb, Hg + Cr
no other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 020324

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	10X14E1		12.600	NITRATE SALTS		10.86	52	9/13	G468	
2	10X7E1		12.510	NITRATE SALTS		6.64	52	9/13	G468	
3	10X14W1		8.810	NITRATE SALTS		4.15	52	9/13	G468	
4	1LR14W1		12.050	NITRATE SALTS		9.48	52	9/13	G468	
5	1LR21E1		3.030	NITRATE SALTS		1.64	52	9/13	G468	
6	1LR14W2		3.790	NITRATE SALTS		2.74	52	9/13	G468	
7	1LR21W1		6.260	NITRATE SALTS		5.4	52	9/13	G468	
8	1RR22W1		1.620	NITRATE SALTS		1.48	52	9/13	G468	
9	1LR22E1		11.730	NITRATE SALTS		8.77	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 150.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	51.16	72.40
Totals	51.16	72.40

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])	584 1975					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	070					
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])	1201.56 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: Gabe Romero (CCP (Print)), 236973 (Z #)

Reviewed By: Rick Jagielski (CCP (Print)), 266088 (Z #)

Comments:

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

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

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), Susan S. Ramsey (Signature), 100681 (Z #), 5/28/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S861975.D
Acq On : 28 May 2013 12:24 pm (#1); 28-May-13, 12:24:17 (#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 12:33:34 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.574	96	4190258	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.904	117	3590889	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.604	GC1	8540	1201.56	ppmv	100

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

vocgas.m Tue May 28 12:34:41 2013

10-22-13

0600 Assuming WCRR operations center. JCOleman

0615 Pre-job being conducted by SOS. RCT reviewing everyone on the processing monthly brief.

0642 SOM's re-briefing on shift orders WCRR-SH-13-003 and WCRR-SH-13-005.

0708 Pre-job concluded.

0712 Beginning outside rounds.

0720 Outside rounds complete.

0802 Beginning inside rounds.

0813 Shutting down ventilation to begin the ~~annual~~ quarterly channel function ~~calibration~~ surveillance. JC 10-22-13 JC 10-22-13

0815 Ventilation is down.

0816 Acknowledged the miner alarm.

0817 Beginning the ~~annual~~ quarterly channel ~~calibration~~ function test. JC 10-22-13 JC 10-22-13

0818 Item #63 is OOS. Okay to proceed with rounds per CSE documentation.

0830 Inside rounds complete.

1000 Both rounds reviewed by SOS.

1022 The quarterly channel function test is complete.

1025 Restarting ventilation.

1029 Ventilation restarted. All readings normal.

1129 Beginning monthly UPS test, WO# 4167551-01

1219 The monthly UPS test is complete.

1248 Late entry at 1101, the channel function test SR 4.3.17 and 4.3.26 were due on 10-14-13. The facility was in Cold standby mode and was in stand down from 10-8-13 until 10-21-13 based upon DOE funding. The surveillances were completed at 1022 and the equipment is operable. (JC)

1254 Awaiting signature from the CSE on the monthly UPS test procedure before we ~~go into~~ JC 10-22-13 go into operations mode.

1300 Mode changed to operations in WCRRF yard and 50-69.

1305 Initiating a drum movement of 3 drums into 50-69.

1328 Drum movement completed.

Continued on next page. JCOleman

10-22-13 Continued from previous page - JColeman
1344 Bagging on S86195.
1401 Bag on complete.
1426 Beginning outside rounds.
1434 Beginning inside rounds.
1445 Item #63 is OOS, okay to proceed per CSE documentation.
1450 Inside rounds complete. Outside rounds complete.
1512 Both rounds reviewed by SOS.
1538 Bagging off 1 daughter, 1 POC, bagging on S860095
1612 Bag on/off complete.
1702 Bagging off 1 daughter, bagging on SC 10-22-13 off another daughter.
1718 Bag off/on complete.
1740 Bagging off last drum of the day.
1759 Bag off complete.
1811 Mode changed to warm in WCRRF yard and 50169.
10-22-13 1830 End of day. OCO position secured. JColeman

No further entries this page

10-22-13 DAYSHIFT

0600 Obtained shift turnover checklist and assumed the WCRR SOM position ~~from [illegible]~~.

0705 Completed attending the pre-job brief conducted by the SOS (Daniell). RWP was reviewed by the RCT lead. Shift Orders - WCRR-SH-13-003-R2, Manual Drum Movements and WCRR-SH-13-005-R0 Precautions to Prevent Bags Tears were reviewed and operators signed off. There are no transfers scheduled for today - the channel function test will be conducted, and if crafts are available, the UPS monthly will be conducted. Roles and Responsibilities were assigned. The safety topic was Freeze Protection awareness. Team work was discussed to ensure both crews work together as a team.

0706 Conducted daily AREA G/SOM - Plan of the Day phone call.

0808 Completed merging Channel Function Test - SP-WCRR-VS-DOP-0313 and the monthly UPS test.

0813 Inside Operators shutdown ventilation per procedure for the Quarterly Channel Function Test.

0901 Crafts arrive to perform the monthly UPS. Escort is assigned and RCT assigned to provide RWP brief.

1015 Met with WMC personnel and discussed LLW to be transfered to AREA 2. The containers to be transfered are to be walked down.

1022 Inside operations report completion of the Channel Function Tests being performed satisfactory.

1029 The ventilation in 50/69 was restarted satisfactory.

1030 The crafts are waiting to obtain a safety watch prior to initiating work on the UPS - Notification was made to the OM. Currently waiting for the CSE to sign off on DOP-0313.

1100 Completed sign off of Channel function Test. Noted Satisfactory for SR-4.3.1.7 and SR 4.3.2.6. Current Status of 50/69 is in Cold.

1120 Completed sign off of WO# 467551-01 for (M) UPS. Safety watch was provided, work was initiated.

1125 Late entry for 1101 hours: Channel Function test SR 4.3.1.7 and 4.3.2.6 were due on 10-14-13. The facility was in Cold Standby Mode, and was in stand down from 10-8-13 till 10-21-13, based upon DOE Funding. As noted at 1100 hrs the SR 4.3.1.7 and SR 4.3.2.6 were conducted satisfactory and equipment is noted Operable

(Continued on Next Page)

10-22-13 Dayshift (Cont).

1230 Per the OM, he obtained approval from the FOD to go operational

1253 CSE completed the sign off of work package WO# 00467551-01 - 50/69 (M) OPS 001 - all was noted satisfactory.

1300 Mode change: WCRR YARD and 50/69 Facility transitioned from WARM/COLD to Operations/Operations.

1305 Shift Orders - WCRR-SH-13-003 R2, MANUAL DRUM MOVEMENTS and WCRR-SH-13-005-R0 - Precautions to Prevent BAG Tears were extended through 10-29-13

1343 Upon completion of re-inventory and prepping the parent for bag on, Parent drum 5861975 was identified to be bagged on -- Operators initiated bag on.

1400 Inside operations report that bag on was completed.

1538 Operations report bagging off 1 daughter and 1 POC and bagging on Parent 5860095

1410 Operators report bag off and bag on completed.

1718 Operations completed bag off of one daughter and bag on of another and continue to process. Approximately 20% of the drum remains to process, and operations will work to completion.

1740 Inside operations report bagging off daughter and parent empty 5860095.

1759 Bag offs were noted complete and the WCR was placed in a safe configuration. No TRU Drums left bagged on.

1811 Mode Change: WCRR yard and 50/69 Facility transition from Operations/Operations to WARM/WARM.
The on-call watch bill was instituted.

1818 Secured the SOM position John Guadagnoli

No further Entries this page

10/22/13 WCRRF 505 Log Book

0600 Assuming 505 Position [signature]

0615 Conducted shift briefing. Reviewed RWP 2012-0015 Reviewed Shift Orders WCRR-SH-13-005 Rev 0 and WCRR-SH-13-003 R2, discussed Plan of the day. Channel function test, Processing parents, Forklift operations. Discussed slow Start after being offsite for two weeks. Discussed Wearing proper PPE and following procedures. Housekeeping.

0700 Pre job complete

0735 Outside Rounds completed and signed off

0813 Ventilation shutdown to begin Channel function test.

0817 Quarterly Channel function test started

1000 Inside Rounds completed and signed. Reviewed Pre operational check for the daily drum lift inspection

1022 Quarterly channel function test completed and signed

1029 Ventilation returned to normal all readings set.

1129 Monthly UPS check Started

1219 Monthly UPS check Completed. Awaiting Signatures

1300 Building 50-69 is in operations mode.

1305 ~~Moving~~ DZB 10-22-13 Starting movement of drums into 50-69.

1325 Movement of drums completed into 50-69

1344 Bag on of drum # S861975

1401 Bag on complete

1515 Inside and outside rounds completed and signed off

1538 Bag off 1 daughter, 1 POC Bagging on drum # S860095

1612 Bag on/off complete.

1702 Bag off 1 daughter, bag on 1 daughter.

1718 Bag off/on complete.

1740 Bagging off drum.

1759 Bag off complete.

1811 Mode change to Warm in WCRRF and Warm in 50-69.

1830 Securing 505 position for the day

No further Entries

DZB 10-22-13

5861975

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68480
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 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.: 179.0 kg Tare Wt.: 33.4 kg Net Wt.: 145.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 68480

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	128.6
Soils (S):	
Total WMP Weight:	145.6

CCP Radiography Data Sheet

Waste Container ID: 68480

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		10/28/2013
Print Name	Signature	Date

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

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

Item ID:	68480	Count Sequence Number:	23753
Operator:	D3PW2DK1\operator		
Assay Start:	10/30/2013 11:00:39 AM		
Description 1:	1LANDA1856		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 146.0 kg	Net:	146.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.740 kg /l		

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

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23753
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68480

Batch Number: 1LANDA1856
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/30/2013

Net Weight	146000.0 g		
Pu mass	4.77E+001	+-	1.15E+001 g
TRU Alpha Activity	7.29E+000	+-	2.19E+000 Ci
TRU Activity Concentration	4.99E+004	+-	1.50E+004 nCi/g
Pu-239 Equivalent Activity	7.39E+000	+-	2.19E+000 Ci
Pu-239 FGE	5.35E+001	+-	1.16E+001 g
Decay heat	2.35E-001	+-	7.24E-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	7.25E-007
U233	<LLD	<LLD	0.00E+000	1.03E-002
U234	1.87E-001	1.16E-003	2.47E-004	0.00E+000
U235	1.33E+001	2.88E-005	6.11E-006	4.94E-006
NP237	9.35E-002	6.59E-005	1.26E-005	3.82E-006
PU238	4.36E-003	7.45E-002	2.14E-002	1.29E-003
U238	1.28E+003	4.30E-004	8.59E-005	7.12E-005
PU239	4.48E+001	2.78E+000	7.11E-001	4.79E-002
PU240	2.86E+000	6.50E-001	1.90E-001	1.12E-002
AM241	1.10E+000	3.79E+000	2.07E+000	9.68E-002
PU241	5.48E-002	5.64E+000	1.65E+000	9.73E-002
PU242	9.55E-003	3.77E-005	1.10E-005	0.00E+000
AM243	9.56E-003	1.91E-003	3.70E-004	1.33E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23753 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68480
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; 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. U-235 mass is greater than the upper limit of 10.0 g. Total U mass is greater than the upper limit of 500.0 g.	Ok U235/U238 verified by gamma spectrum. Results valid.

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

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

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68480**

BDR Number: **LA13FG2112**

Sampling Date: **11/4/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	391.40	
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\131104c\
Data File : 68480.D
Acq On : 4 Nov 2013 10:59 am (#1); 04-Nov-13, 10:58:55 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 11:08:00 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	3.562	96	4827927	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.861	117	3752101	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.621	GC1	2943	391.40	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-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68511
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 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.: 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:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68511

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: 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):	0.8
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):	13.1
Soils (S):	
Total WMP Weight:	15.9

CCP Radiography Data Sheet

Waste Container ID: 68511

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		10/28/2013
Print Name	Signature	Date

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

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

Item ID:            68511              Count Sequence Number:  23742
Operator:           D3PW2DK1\operator
Assay Start:        10/29/2013 12:08:52 PM
Description 1:      1LANDA1855
Description 2:      POC 161.0
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon 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:                        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:	23742	Batch Number:	1LANDA1855
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:	68511	Analysis Date:	10/29/2013

Net Weight	15900.0 g		
Pu mass	2.09E+001	+-	9.45E+000 g
TRU Alpha Activity	2.80E+000	+-	1.06E+000 Ci
TRU Activity Concentration	1.76E+005	+-	6.64E+004 nCi/g
Pu-239 Equivalent Activity	2.84E+000	+-	1.06E+000 Ci
Pu-239 FGE	1.97E+001	+-	9.43E+000 g
Decay heat	8.99E-002	+-	3.44E-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	3.95E-007
U233	<LLD	<LLD	0.00E+000	8.80E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.73E-006
NP237	2.62E-002	1.85E-005	3.43E-006	2.48E-006
PU238	1.91E-003	3.27E-002	1.62E-002	5.35E-004
U238	<LLD	<LLD	0.00E+000	1.36E-005
PU239	1.96E+001	1.22E+000	5.85E-001	1.99E-002
PU240	1.26E+000	2.85E-001	1.43E-001	4.66E-003
AM241	3.67E-001	1.26E+000	8.68E-001	9.12E-002
PU241	2.40E-002	2.48E+000	1.24E+000	4.05E-002
PU242	4.19E-003	1.66E-005	8.28E-006	0.00E+000
AM243	1.09E-002	2.17E-003	3.98E-004	1.15E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 10-31-13

Automated Independent Technical Review

Count Sequence Number: 23742
Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68511
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 10/29/2013

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

Expert Review by: Sheri Chamberlin Date: 10-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68511**

BDR Number: **LA13FG2115**

Sampling Date: **11/13/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	444.06	
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\131113c\
Data File : 68511.D
Acq On : 13 Nov 2013 1:23 pm (#1); 13-Nov-13, 13:23:10 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 13:31:43 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	3.516	96	4457509	205.75 ppmv	0.00
15) Chlorobenzene-d5	5.839	117	3418839	177.50 ppmv	-0.02
Target Compounds					Qvalue
1) Hydrogen	1.604	GC1	3339m	444.06 ppmv	

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

S8619 76

S861976

Container P 747101

File Options Reports Help

S861976

747101	TBD-TRU	T-TTRU-TEMP	Active	Decommissio

- 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

Genealogy

S861976

- S861976
  - LA00000069119 –EMPTY
  - LA00000068686 –LANL
    - LASB50062
  - LA00000068661 - WCS
    - LASB50046

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured W

ATTACHMENT 1
Page 1 of 4

Working Copy
Date: 12/4/13 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S861976

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

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Federico Adelfeta / [signature] 1228826 12-4-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S861976

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 423.2 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) 423.2 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/AT
Initials Z# Date

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S861976

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	686661	686876		
10.1[4]	Daughter Drum Filter No.	LM-863	LM-898	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10326	L-10106		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	15 gallons	6 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	See Comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	75%	90%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Acid neutralizer absorbent kitty litter	Acid neutralizer kitty litter plastic absorbent bags		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S861976

Comments: Plastic, Nitrate Salts, Room trash, Kitty litter, 1 galon plastic bottle cut in half;

11.1[1] Performed By: Federico Ochoa / [signature] 122856 / 12-4-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [signature] 149235 / 12/6/13 0856
SOS or designee (print) Signature Z # Date/Time

Working Copy

Date: 12-3-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: _____

Lot No.: _____

Manufacture Date: _____

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

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

Overpack filtered vent information:

Manufacturer: _____

Model No.: _____

Serial No.: _____

Manufacture Date: _____

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

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: Drum not Preped at WCRRF

8.1[1] Performed By: Frederick Robledo / [signature] / 1205826 / 12-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] / 1492351 / 12/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 12/4/13 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69119

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: Federico Nebolda / [signature] 1228826 / 12-4-13
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): 164.0 lb

Comments: N/C

8.1[1] Performed By: Federico Nebolda / [signature] 1228826 / 12-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 1448235 / 12/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 11/12/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68661

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.: 60PVC-1.5-2 SAVC
Serial No.: L-10326
Manufacture Date: 6-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-13	8 5 14
Range:	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: Federico Aguilar / [signature] 1278826 / 11-12-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: ~~L-10326~~ LM-863
Manufacture Date: 6-13

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.: 68661

Comments: N/C

5.[35] Performed By: Federico [illegible] | [illegible] 1228826 | 11-12-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez | [illegible] 149235 12/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68666 /

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

M&TE No.: CR8369
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: Federico [illegible] / [signature] 1228826 / 12-4-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 686061

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 309.4 lbs

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

Comments: N/C

6.[32] Performed By: Frederick Rebeleta [signature] 1228826 12-4-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 149238 12/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68686

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 024 0119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6epve-165 2.5PIE
Serial No.: L-10106
Manufacture Date: 05/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12/18/13	08/05/14
Range:	40-200 in-lb	16-30 ft-lb
Tolerance (+/-):	± 4/cw ± 6/ccw	± 3/cw ± 6/ccw

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

Performed By: Andrew H Romero (Operator (print)) Andrew H. Romero (Signature) 1870061 (Z #) 11/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NucFil
Model No.: 019DS
Serial No.: LM-898
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.: 68686

Comments: N/A

5.[35] Performed By: Andrew H. Romero (Operator (print)) Andrew H Romero (Signature) 157006 (Z #) 11/18/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) (Signature) 149235 (Z #) 12/6/13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 686686

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: [illegible] / [illegible] / /
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N	N
Range:	A in-lb	A ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 681686

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 367.2 lbs

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

Comments: N/C

6.[32] Performed By: Federico Rodriguez | [signature] | 1275826 | 12-4-13
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Gilbert Martinez | [signature] | 1169235 | 12/6/13
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 3
Page 1 of 1

Working Copy
Date: ~~12/10/13~~ 12/4/13 HG

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S861976

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): 423.2

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

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA [signature] 125772d 12-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Montoya [signature] 149235 12-6-13
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: [signature] 149235 12/6/13 0700
SOS/SOM or designee (print) Signature Z # Date Time

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

1930 SP 70

Production Control

Container ID: S861976 Container Type: 55-GAL Gross Weight (lbs): 440
Inner Seal #: 020314 Filter Prefix: LAVC Filter Serial #: 03498
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
WSR Comments: LEACHED SOLIDS MST 12 A0755
Total PE-Ci Activity: 5.85E+00 Equivalent Combustible PE-Ci: 2.20E+00 AM-241 PE-Ci: 4.75E-01
Total Fissile Gram Equivalents: 64.7 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 5/3/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured Liquid Location: 24"
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 J. Ramsey / 100681 / 12/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 380# Generator info shows 11 items of nitrate salts; items weighed between 10 & 43#. No RTR BDR. Nitrate salts typically packaged in plastic bags; undocumented liquids & or debris may be present. RTR PS shows prohibited liquids & impenetrable objects along w/ unpunctured liner. No chemicals identified. Nitrate salts carry waste codes for chromium lead and mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/17/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And Kitty Litter Kabob

Performed By: G Mh / [signature] / 149232 / 6/20/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez / [signature] / 221452 / 6/22/13

IHS Review. Jaley Amalloy CSD may contain Pb, Hg + Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 020314

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	12LR19W1		15.210	NITRATE SALTS		2.38	52	9/13	G468	
2	12EV18E1		4.850	NITRATE SALTS		0.57	52	9/13	G468	
3	12OX12W1		5.370	NITRATE SALTS		1.3	52	9/13	G468	
4	12DS17W1		13.060	NITRATE SALTS		3.85	52	9/13	G468	
5	12OX12E1		11.240	NITRATE SALTS		1.67	52	9/13	G468	
6	12OX19E1		7.480	NITRATE SALTS		1.04	52	9/13	G468	
7	12DS26W1		10.720	NITRATE SALTS		19.72	52	9/13	G468	
8	12DS26E1		12.730	NITRATE SALTS		18.45	52	9/13	G468	
9	1DS6W1		19.400	NITRATE SALTS		13.81	52	9/13	G468	
10	12LR18W1		4.860	NITRATE SALTS		1.51	52	9/13	G468	
11	12OX19W1		14.120	NITRATE SALTS		4.39	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	68.69	119.04
Totals	68.69	119.04

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/18/13

Container No. (5.[1])	S861976					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	938.28 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Erik Loechell (CCP (Print)), 234183 (Z#)

Reviewed By: Nathan 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 L. Ramsey (Signature), 110068 (Z#), 5/20/13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130418c\
Data File : S861976.D
Acq On : 18 Apr 2013 2:11 pm
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM FILTER-UN-19DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 18 15:39:40 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.057	96	8450713	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6822413	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.897	GC1	267627m	938.28 ppmv	

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

VOCGAS.M Thu Apr 18 15:39:45 2013 UNIT12

12/4/13

0613 ASSUMING OPERATIONS CENTER H SMITH

0625 STARTING PRE-JOB BRIEFING

0700 PRE JOB CONCLUDED

0723 OPERATORS ENTER FACILITY TO INSPECT GLOVEBOX GLOVES FOR GLOVE CHANGES

0815 OPERATORS NOTIFIED OPERATIONS CENTER GLOVEBOX GLOVE STATION #7, WILL NEED TO BE CHANGED.

0821 MODE CHANGE DECREASE TO WARM STANDBY IN TA50-69 AND WCRRF YARD.

0832 STARTING GLOVEBOX GLOVE CHANGES AT STATION #7 BOTH LEFT & RIGHT GLOVES

0858 COMPLETED GLOVE CHANGES

0904 MODE CHANGE INCREASE WCRR YARD AND TA50-69 NOW IN OPERATIONS MODE

0920 OPERATORS ADVISE OPS CENTER ON POST JOB SURVEYS RCT FOUND 10 DPM ALPHA AT STATION #7. WIPE DOWN AND WILL RE-EVALUATE. 12/4/13

0934 OPERATORS ADVISED OPERATION CENTER SMEARS FROM GLOVE SURVEYS WERE NDA

0936 BAGGING OFF, BAGGING ON DAUGHTER

0953 BAG OFF COMPLETE AND CONTINUING TO PROCESS

1005 EWMO DIVISION BEP MEETING BEGINNING

1014 BAGGING OFF, BAGGING S861976

1116 OPERATORS NOTIFIED OPS CENTER OF LEFT HAND CONTAMINATED GLOVE WHILE PERFORMING BAG CUT DURING BAG OFF, PPE GLOVE REMOVED AND RCT'S STATED LEVEL BELOW RWP LIMITS AND OPERATORS CONTINUED WITH OPERATION

1144 OPERATORS NOTIFIED OPERATIONS CENTER OF 15 GALLONS ON FLUIDS IN S861976, AND DRUM STILL CONTAINS FROZEN MATTER

1154 BAGGING OFF, BAGGING ON 1 DAUGHTER

1155 LATE ENTRY: EWMO DIVISION BEP BRIEFING CONCLUDED 1145 HS

1210 BAG ON BAG OFF COMPLETED

CONTINUED ON NEXT PAGE H SMITH

12-4-13 CONTINUED FROM PREVIOUS PAGE H SMITH
1250 OPERATORS PUT WASTE IN SAFE CONFIGURATION
TO PAUSE WORK FOR MEETING AND LUNCH
1510 WORK SCHEDULE ~~BG~~ HS 12/4/13 BRIEFING CONCLUDED
1620 OPERATORS REMESTING AND BAGGING ON.
1700 STARTING OUTSIDE ROUNDS
1720 BAG ON BAG OFF COMPLETED, BAG ON 68734
1731 OUTSIDE ROUNDS COMPLETED
1731 BEGIN MOVEMENT OUT OF TA50-69 INTO TA50-194/75
1731 STARTED INSIDE ROUNDS
1749 ITEM #63 INSIDE ROUNDS OOS, POD IN PLACE
PERMISSION TO PROCEED PER CSE DOCUMENTATION
1755 MOVEMENT INTO TA50-194/75 IS COMPLETED.
1756 INSIDE ROUNDS COMPLETE
12-4-13 1800 BEING RELIEVED BY TERRI COLEMAN H SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

12-4-13 DAYSHIFT

0600 Reviewed shift turnover checklist and assumed the WCRR SOM position [signature]

0658 Completed attending the pre-job brief conducted by the SOS (Clarissa). The safety topic was high wind, be careful when opening transportation doors on maxpan shed / PPE doors. During shift relief, it was reported stations 1, 2, 3, 4, 7, and 8 gloves require changing due to wear. The PIC and RCT will inspect prior to operations commencing. There is one scheduled transfer out.

0700 Completed daily POD call in with AREA 6 - SOM

0815 Inside operations report they will change station 7 - LAR hand.

0821 Mode Change: 50/69 and yard transition from Operations/Operations to warm/warm

0832 The screen radio was checked and was noted operational, no battery required

0836 Glove change noted completed.

0904 Mode Change 50/69 and yard transition from warm/warm to Operations/Operations

0935 Inside operation initiate bag off and bag on of 1 daughter of Parent 68725 SP-72.

1010 Initiate Training in Operations Center on EWMD Division Bldg Emergency Plan Ops Center Protocol with (C.D) as trainer.

1041 Inside Operations report bagging off and bagging on Parent 5861976.

1116 Inside Operations report that the left hand / PPE glove was contaminated during bag off; RCTs removed and contained / threw away glove. Levels were within RCT limits. PPE glove replaced and operations continued.

1144 Operators report 15 gallons of liquid from parent 5861976 and they observe frozen matter within the drum. It is noted as Φ.

1154 Operators are bagging off 1 daughter and bagging on another

1250 Operations place wcg in a safe configuration and exit for lunch

1310 Operations completed meeting with ES Project Manager and reentered 50/69

1320 Operations initiated demesting 2 parents and will perform bag off / bag on.

1718 The bag off and bag on is noted complete. Parent drum bagged on is 68734

1731 Operations initiate movement of 4 drums.

1750 All movements were completed, WCR secured for night shift.

1809 Relieved of SOM by R. ARTEAL [signature]

No further entries this page
[signature]

12-4-13
0625 Assuming WCRRF SCS position.
0626 Starting Pre-job briefing
0700 Pre job concluded.
0818 Glove inspection complete will need to change out 7th station 7 left and right
0821 mode change to warm on WCRRF yard and TA50 L
0852 Started glove changes
0858 Glove changes completed
0914 mode change performed TA50 L9 and WCRRF yard in operations
0920 Operators inside received ops center that post job results showing 10 dpm alpha from station 7 glove changes RCTs ~~Reperfor~~ @ 12-4-13 reperforming smears after wipedown

---

0935 RCT resurvey of smears of Station 7 are HCA
0936 Bagging off 1 daughter bagging on 1 daughter.
0953 Bag on, bag off complete
1000 Briefing being conducted on emergency plan operations Centers response Protocol
1041 Bagging off, bagging on S841976
1116 Inside pec notified ops center of a tear left hand PP glove while performing bag cut. PPE glove removed and RCTs have stated RCP limits not exceeded. Operators continuing with operations.
1124 Inside pec notified ops center of 15 gallons of liquid chem drum 9841976 and drum still contains liq
1155 Bagging off 1 daughter, Bagging on 1 daughter.
1156 late entry Briefing completed at 1130 (JE)
1210 Bag on, Bag off Complete
1300 meeting with ES ops manager
1500 meeting concluded.
1600 starting to derrick and bag off. Then bagging on 8873
1718 Bag on, bag off complete Derricking also complete.
1721 Starting inside rounds
1730 Completed outside rounds.
1736 Starting movement out of 50-L9
1800 Completed inside rounds
1815 Being relieved by SPS Carroll Blair Orlando

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0135
Examination Date:	12/12/2013
Waste Container ID:	68661
Video/Audio Recorded Media Number:	LA-RTR2-13-0135 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.: 139.5 kg Tare Wt.: 33.4 kg Net Wt.: 106.1 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: 68661

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):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	94.1
Soils (S):	
Total WMP Weight:	106.1

CCP Radiography Data Sheet

Waste Container ID: 68661

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	12/12/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68661	Count Sequence Number:	24006
Operator:	D3PW2DK1\operator		
Assay Start:	12/17/2013 2:00:48 PM		
Description 1:	1LANDA1881		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 106.0 kg	Net:	106.0 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.780 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 24006
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68661

Batch Number: 1LANDA1881
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 12/17/2013

Net Weight	106000.0 g		
Pu mass	1.75E+001	+-	3.25E+000 g
TRU Alpha Activity	3.12E+000	+-	1.03E+000 Ci
TRU Activity Concentration	2.95E+004	+-	9.70E+003 nCi/g
Pu-239 Equivalent Activity	3.16E+000	+-	1.03E+000 Ci
Pu-239 FGE	1.65E+001	+-	3.24E+000 g
Decay heat	1.01E-001	+-	3.41E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	1.29E-010	1.45E-007	3.62E-008	7.92E-008
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.07E-007
U233	<LLD	<LLD	0.00E+000	6.99E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.80E-006
NP237	4.67E-002	3.30E-005	6.55E-006	2.74E-006
PU238	1.60E-003	2.74E-002	6.42E-003	1.13E-003
U238	<LLD	<LLD	0.00E+000	1.36E-005
PU239	1.65E+001	1.02E+000	2.01E-001	4.21E-002
PU240	1.05E+000	2.39E-001	5.78E-002	9.86E-003
AM241	5.35E-001	1.84E+000	1.01E+000	8.11E-002
PU241	2.00E-002	2.06E+000	4.99E-001	8.51E-002
PU242	3.51E-003	1.39E-005	3.36E-006	0.00E+000
AM243	4.75E-003	9.50E-004	1.90E-004	9.70E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 12/19/13

ITR: _____ Date: 12.19.13

Automated Independent Technical Review

Count Sequence Number: 24006
Batch Number: 1LANDA1881
Counter ID: MCS HENC #1
Container ID: 68661
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 12/17/2013

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

Expert Review by: Sheri Chamberlin Date: 12-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68661**

BDR Number: **LA13FG12133**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	134.22	
74-82-8	Methane	6.56	U
67-56-1	Methanol	5.90	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.42	U
75-34-3	1,1-Dichloroethane	0.72	U
156-59-2	cis-1,2-Dichloroethene	0.09	U
78-93-3	Methyl ethyl ketone	0.90	U
110-82-7	Cyclohexane	0.59	U
71-43-2	Benzene	0.17	U
107-06-2	1,2-Dichloroethane	0.56	U
71-36-3	1-Butanol	0.38	U
108-10-1	Methyl isobutyl ketone	0.66	U
108-88-3	Toluene	0.93	U
108-90-7	Chlorobenzene	0.67	U
100-41-4	Ethylbenzene	0.59	U
108-38-3/106-42-3	m- and p-Xylene	0.38	U
95-47-6	o-Xylene	0.36	U
108-67-8	1,3,5-Trimethylbenzene	0.65	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

16
~~17~~
EL 1-15-14

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131220c\
Data File : 68661.D
Acq On : 20 Dec 2013 1:15 pm (#1); 20 Dec 2013 1:14 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 20 13:23:47 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	7631500	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6143223	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.913	GC1	38287m	134.22	ppmv	
4) Methanol	0.831	31	2381	5.90	ppmv	100

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

36
~~38~~ EL 1/5/14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0135
Examination Date:	12/12/2013
Waste Container ID:	68686
Video/Audio Recorded Media Number:	LA-RTR2-13-0135 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.: 166.5 kg Tare Wt.: 33.4 kg Net Wt.: 133.1 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: 68686

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	117.1
Soils (S):	
Total WMP Weight:	133.1

CCP Radiography Data Sheet

Waste Container ID: 68686

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	12/12/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68686	Count Sequence Number:	24050
Operator:	D3PW2DK1\operator		
Assay Start:	1/3/2014 8:47:45 AM		
Description 1:	1LANDA1886		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 133.0 kg	Net:	133.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.850 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24050	Batch Number:	1LANDA1886
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:	68686	Analysis Date:	1/3/2014

Net Weight	133000.0 g		
Pu mass	4.64E+001	+- 1.11E+001	g
TRU Alpha Activity	8.79E+000	+- 3.05E+000	Ci
TRU Activity Concentration	6.61E+004	+- 2.29E+004	nCi/g
Pu-239 Equivalent Activity	8.89E+000	+- 3.05E+000	Ci
Pu-239 FGE	4.38E+001	+- 1.11E+001	g
Decay heat	2.85E-001	+- 1.01E-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	9.24E-007
U233	<LLD	<LLD	0.00E+000	1.33E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.05E-006
NP237	1.06E-001	7.49E-005	1.56E-005	4.90E-006
PU238	4.23E-003	7.24E-002	2.07E-002	2.14E-003
U238	<LLD	<LLD	0.00E+000	1.91E-005
PU239	4.35E+001	2.70E+000	6.89E-001	8.00E-002
PU240	2.78E+000	6.32E-001	1.84E-001	1.87E-002
AM241	1.57E+000	5.38E+000	2.97E+000	1.43E-001
PU241	5.28E-002	5.44E+000	1.59E+000	1.61E-001
PU242	9.29E-003	3.67E-005	1.07E-005	0.00E+000
AM243	1.85E-002	3.69E-003	7.74E-004	1.85E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·7·14

ITR: _____ Date: 1·9·14

Automated Independent Technical Review

Count Sequence Number: 24050 Batch Number: 1LANDA1886
Counter ID: MCS HENC #1
Container ID: 68686
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/3/2014

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.
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: 1-6-14

S861976

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68686**

BDR Number: **LA14FG2003**

Sampling Date: **1/10/2014**

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\140110c\
Data File : 68686.D
Acq On : 10 Jan 2014 2:22 pm (#1); 10-Jan-14, 14:22:03 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 14:30:40 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	3.587	96	3325252	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.884	117	2670676	177.50	ppmv	0.02

Target Compounds	Qvalue

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

S861980

S861980

Container H... 760669

File Options Reports Help

S861980

760669	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

S861980

- S861980
  - LA00000069237 - LANL
    - LASB50066
  - LA00000069234 - WCS
    - LASB50034
  - LA00000069240 - EMPTY

Task History

Transfer Details

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

1-18-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5 861980

6.2[4] Date Processed: 1/18/14

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10/14/14

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

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

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

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

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

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S 867980

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 450.8 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 450.8 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.: 5 861 990

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69234	69237		
10.1[4]	Daughter Drum Filter No. JL825	~~CM 355~~	JL814	N	
10.1[4]	Daughter Drum Bag Filter No. L12775	~~L12775~~	L12777		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				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N	A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	1.5 GAL	N/A		
10.3[5][A]	Free Liquid Volume/Units	5 GALLONS	1 GAL.	N	A
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description	N	A		
10.3[9][B]	PCB Item ID No.			N	A
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	85%	80%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER	KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 861980

Comments: LEAD, SEALS OF LIQUID, PLASTICS SALTS, KITTY LITTER

11.1[1] Performed By: JOE QUINTANA / Joe Q 239987 / 1/18/14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / CM 240092 / 1/19/14 0818
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.: 501893
Lot No.: 0244438
Manufacture Date: 13

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

	Filtered Vent	2-in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	8-5-14
Tolerance:	±4% CW ±6% CCW	±3% CW ±6% CCW

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: HL-856
Manufacture Date: 8/11

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

5. [11] Performed By: GERARD ESPINOZA / HOWARD SMITH — Signature — 237720 / 122673 — 1/16/14 / 1/16/14
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: GERARD ESPINOZA / HOWARD SMITH — Signature — 237720 / 122673 — 1/16/14 / 1/16/14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton McMins — Signature — 240021 — 1/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

1-18-14 JC

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69240

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8/2/14
Range in ft-lb: 16-80
Tolerance: +/- 3% cw
+/- 6% ccw

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

Performed By: JOE QUINTANA, Joe Q 239987, 1/18/14
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): 179.6 lb

Comments: N/C

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

8.1[7] Reviewed By: Clayton Mullins, CA 240096 1/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

1-15-14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69234

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 024449
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6 CAVC 1.5-2 SAVC
Serial No.: L-12775
Manufacture Date: 7/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	8-5-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

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

Performed By: [illegible] / [signature] 1230061 1-15-14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucsil
Model No.: 019 DS
Serial No.: JL 825
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: 20 ft-lb

5.[30] Scale File ID number: 0190165

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.: 69234

Comments: N/C

5.[35] Performed By: GERALD ESPINOZA / HOWARD SMITH — Operator (print) — Signature — 237720 / 1267731 — Z # — 1-15-14 / 1/15/14 — Date

7.1[4] Reviewed By: Clayton Mullins — Supervisor or designee (print) — Signature — 1240092 — Z # — 1/19/14 — Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 62234

6.[9] Drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8/2/14
Range: 16-80 ft-lb
Tolerance (+/-):

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

Performed By: JOE QUINTANA / [signature] 239987 / 1/18/14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / /
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69234

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 347.0 lbs

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

Comments: N/L

6.[32] Performed By: JOE QUINTANA, [signature] 239987, 1/18/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins, [signature] 240092 1/19/14
Supervisor or designee (print) Signature Z # Date

Working Copy

1-15-14 ω

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69237

5.[3] Drum information:
- Purchase Order No.: 501892
- Lot No.: 0244449
- Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
- Manufacturer: BOP
- Model No.: 6 CNC-1.5-2 SHC
- Serial No.: L 12777
- Manufacture Date: 7/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	0362245
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: [illegible] / [signature] [illegible] 1-15-14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
- Manufacturer: Nucfil
- Model No.: 019 DS
- Serial No.: JL8114
- 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: 20 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 69237

Comments: N/C

5.[35] Performed By: GERALD ESPENOZA / HOWARD SMITH — Operator (print) | Signature | Z # 237720 / 1226731 | Date 1-15-14 / 1/15/14

7.1[4] Reviewed By: Clayton Mullins — Supervisor or designee (print) | Signature | Z # 240092 | Date 1/19/14

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69237

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

M&TE No.: 038370
Cal. Expiration Date: 8/2/14
Range: 16-80 ft-lb
Tolerance (+/-): +/- 3%, cw
+/- 6%, ccw

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

Performed By: JOE QUINTANA / Joe Q / 239987 / 1/18/14
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / / / /
Operator (print) / Signature / Z # / Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69237

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 382.8 lbs

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

Comments: N/C

6.[32] Performed By: JOE QUINTANA (Operator (print)), [signature] (Signature), 239987 (Z #), 1/18/14 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)), [signature] (Signature), 1240091 (Z #), 1/19/14 (Date)

1-17-14 JL

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5861950

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): 450.8

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

Comments: N/C

8.1[1] Performed By: JOE QUINTANA, [signature] 239987, 1/17/14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins, [signature] 124000, 1/19/14
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: John Guadagnoli, [signature] 125695, 1-PM, 0823
SOS/SOM or designee (print) Signature Z # Date Time

SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S861980 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 544.07
Total PE-Ci Activity: 3.96E+00 Equivalent Combustible PE-Ci: 3.49E+00
Total Fissile Gram Equivalents: 4.43E+01 Total Surface Dose Rate (mrem/hr): 10.7
EPA Code(s): D007A; D008A; D009B
Waste Description: LA-MIN02-V.001

Remediation/Characterization Activities: Ensure EPA Codes D007, D008 and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volume of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts. No other prohibited items are indicated. No RTR Pre-screen is found.

Potential Safety Risks: Nitrate salts often contain free liquid and are packaged in individual plastic bags. Generator records indicate the container to have a net wt. is 129.57 kg with 14 items ranging from 4.59 kg to 13.48 kg.

Performed By: Barbara Trujillo (LTP-PTS (Print)) Barbara Trujillo (Signature) 167341 (Z#) 1/16/2014 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, chromium and Mercury.

Performed By: Tony Smallwood (IHS Representative (Print)) Tony Smallwood (Signature) 241659 (Z#) 1-16-14 (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)) Valerie Rhodes (Signature) 112669 (Z#) 1/16/14 (Date)

TRU Remediation Operations

Potential Safety Risks: Use proper PPE and kitty litter ratio

Performed By: Gilbert Martin (TRU Operations (Print)) (Signature) 112525 (Z#) 1/16/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Use proper and current procedures and SWO's

Approved By: Darrel L. Blain (OM or designee (Print)) (Signature) 218069 (Z#) 1/16/14 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 020310

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	12LR4W1		10.270	NITRATE SALTS		1.12	52	9/13	G468	
2	12LR4E1		9.280	NITRATE SALTS		1.	52	9/13	G468	
3	12OX10W1		7.480	NITRATE SALTS		11.51	52	9/13	G468	
4	12OX10E1		10.780	NITRATE SALTS		6.04	52	9/13	G468	
5	12DS11W1		12.200	NITRATE SALTS		14.15	52	9/13	G468	
6	12LR9E1		6.030	NITRATE SALTS		1.61	52	9/13	G468	
7	12LR9W1		11.210	NITRATE SALTS		1.06	52	9/13	G468	
8	12LR16W1		9.950	NITRATE SALTS		1.46	52	9/13	G468	
9	12EV13E1		5.980	NITRATE SALTS		0.95	52	9/13	G468	
10	12LR12W1		13.480	NITRATE SALTS		1.77	52	9/13	G468	
11	12OX16E1		12.550	NITRATE SALTS		1.71	52	9/13	G468	
12	12LR12E1		8.930	NITRATE SALTS		2.4	52	9/13	G468	
13	12EV23W1		6.840	NITRATE SALTS		1.21	52	9/13	G468	
14	12LR20W1		4.590	NITRATE SALTS		0.95	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 210.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	46.94	129.57
Totals	46.94	129.57

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4-18-2013

Container No. (5.[1])	5861980					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])						
Filtered Vent Type (5.[1])	19-DS			NA		
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])	925.26 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	538.76 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Erik Loechell / 234183
CCP (Print) Z #

Reviewed By: Nathan Wales / 237975
CCP (Print) Z #

Comments: — NA —

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: Barbara Trujillo / 167341 1/16/14
Waste Handling Operator (print) Signature Z # Date

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130418c\
Data File : S861980.D
Acq On : 18 Apr 2013 12:54 pm (#1); 18 Apr 2013 12:53 pm (#2)
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM FILTER-UN-19DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 18 12:02:39 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.063	96	8969814	207.75 ppmv	0 00
15) Chlorobenzene-d5	6.639	117	7199641	178.75 ppmv	0 00
Target Compounds					Qvalue
1) Hydrogen	1.897	GC1	153672	538 76 ppmv	100

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

VOCGAS.M Thu Jan 16 11:37:15 2014 UNIT12

1-18-14
0600 Assuming UCRR operation center. JColeman
0612 Beginning outside rounds.
0632 Outside rounds complete.
0640 Beginning inside rounds.
0654 Item #63 & CCS, PCD in place, okay to proceed per CSE documentation
0705 Inside rounds complete.
0725 Both rounds reviewed by SCS
0728 Mode change complete. We are now in operations in UCRR and 5069
0845 Bagging off 1 daughter, bagging on S861980.
0914 Bag off/on complete. PPE check is Sat.
1000 Initiating a drum movement from 5069 to a transportainer.
1024 Drum movement out of 5069 complete.
1030 Bagging off 1 daughter, bagging on another daughter. PPE check is Sat.
1050 Bag off/on complete.
1138 Bagging off 1 daughter, bagging on S813513. PPE check is Sa
1205 Bag off/on complete.
1224 Operators out for lunch.
1351 Initiating a drum movement from transportainer to 5069. and 5069 to a transportainer. JC 1-18-14.
1410 Drum movement complete.
1502 Bagging off 1 daughter, bagging on another daughter. PPE check is Sat.
1524 Bag off/on complete.
1553 Beginning inside rounds.
1614 Item #63 & CCS, PCD in place, okay to proceed per CSE documentation
1617 Inside rounds complete. Beginning outside rounds.
1635 Bagging off 1 daughter, bagging on another daughter.
1640 Outside rounds complete.
1647 Both rounds reviewed by SCS.
1648 Late entry at 1337, operators back from lunch JC
1717 Bagging off 1 daughter, placing port cover on.
1748 Bag off complete.
1807 Mode changed from ~~warm~~ operations JC 1-18-14 to warm in yard + 5069
1830 End of day. CCD position secure. JColeman
No further entries this page JColeman

1-18-14 WCRR - SOM

0558 Reviewed logs and assumed the WCRR SOM position John Gwalczyk

0627 Completed attending the pre-job brief conducted by Clayton the SOS. The Safety Topic was Carbon Monoxide Poisoning especially in winter months when letting cars warm up. SOS reviewed current status with 1 drum currently bagged on and ready to work. Current shift orders were reviewed.

0725 Rounds were completed and reviewed

0728 Mode change: 50/69 and yard transition from warm/warm to Operations/Operations.

0749 Initiated merge of Dome 224 work - prep empties and filter/change out repack - for SWB - work to be conducted this afternoon (P. Brady) RCRA G - SOM. - approved

0756 Discussed with operators in 50/69 contents of current drum bagged on, no liquids noted.

0801 Inside temperature is at 65°F and the setpoint is at 77°F

0838 Inside PIC requests to turn down the thermostat to 67°F, approved.

0846 Inside Operations initiate bag off of daughter generated from Parent 90927 and bag on of Parent 5861980 - SF-72

0914 PIC informs OCC, that bag on and bag off is completed.

1001 Outside operators initiate a movement out of 50/69 to the transportainer

1018 Outside operators complete move to the transportainers - 6 drums total.

1030 Inside operators report bagging off 1 daughter and bagging on another

1137 Operations report bagging off 1 daughter and 1 Parent and bagging on Parent 5813513 SF-21

1215 Operations complete bag off and bag on

1225 Operator exit facility 50/69 to initiate lunch break

1335 Operators enter 50/69 to start processing

1400 Operations initiate a movement into 50/69 2 drums (Parents total)

1410 Entry into 50/69 is noted completed

1456 Operations report 5813513 SF-21 is noted as 1-55 gallon bag of sludge typewriter / - low dose.

1501 Inside Operations initiate bag off of 1 daughter and bag on of another and continue to process

1524 Bag off of daughter is noted completed

1634 Operators initiate bagging off 1 daughter and bagging on another daughter.

1654 Inside operators report bagging off/on completed.

1717 Inside operators initiate bag off of daughter and parent and will place post-cover on WCG

1748 Bag off completed, post cover is in place and the WCG is in a safe configuration.

1754 Completed review of 7 work packages and updated with current RWP

1807 Mode Change: 50-69 and yard transition from Operations/Operations to warm/warm

1813 Ensured inside temperature is set at 77°F. Reviewed rounds and RCRA completed

1818 Secured the WCRR SOM position John Gwalczyk

(No further entries this page)

WCRRF SOS Log Book

1/18/14
0600 Assuming SOS position. CA
0615 Starting Pre-Job, discussed watching for signs of carbon monoxide poisoning.
0635 Pre-Job complete.
0725 Signed off on the rounds.
0728 Mode change complete, WCRRF yard and 50-69 are now in Operations, continuing to process drum left on over night.
0846 Bagging off, bagging on 5861980.
0914 Bag off/on complete.
1000 Starting movement out of 50-69.
1024 Movement out complete.
1030 Bagging off 1st daughter, bagging on a 2nd.
1050 Bag off/on complete.
1138 Bagging off 2nd daughter, bagging on 5813513.
1205 Bag off/on complete.
1357 Starting movement into 50-69.
1410 Movement in complete.
1502 Bagging off 1st daughter, bagging on a 2nd.
1524 Bag off/on complete
1635 ~~1550 Starting~~ 1-18-14 Bagging off 2nd daughter, bagging on a 3rd.
1647 Signed off on the rounds.
1654 Bag off/on complete.
1717 Bagging off 3rd daughter to complete processing
1748 Bag off complete.
1807 Mode change complete, WCRRF yard and 50-69 are now in Operations.
1-18-14 1812 Securing SOS position. CA

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0010
Examination Date:	1/24/2014
Waste Container ID:	69234
Video/Audio Recorded Media Number:	LA-RTR2-14-0010 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.: 157.0 kg Tare Wt.: 33.4 kg Net Wt.: 123.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 69234

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	115.6
Soils (S):	
Total WMP Weight:	123.6

CCP Radiography Data Sheet

Waste Container ID: 69234

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	1/24/2014
Print Name	Signature	Date

NDA 2000 Assay Report

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

Item ID:	69234	Count Sequence Number:	16902
Operator:	DCLTD231\Operator		
Assay Start:	1/27/2014 12:51:15 PM		
Description 1:	2LANDA1258		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 124.0 kg	Net:	124.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
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:	16902	Batch Number:	2LANDA1258
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69234	Analysis Date:	1/27/2014

Net Weight	124000.0 g		
Pu mass	9.89E+000	+-	1.97E+000 g
TRU Alpha Activity	2.84E+000	+-	1.16E+000 Ci
TRU Activity Concentration	2.29E+004	+-	9.37E+003 nCi/g
Pu-239 Equivalent Activity	2.86E+000	+-	1.16E+000 Ci
Pu-239 FGE	9.33E+000	+-	1.96E+000 g
Decay heat	9.30E-002	+-	3.86E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.46E-007
U233	<LLD	<LLD	0.00E+000	5.51E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.42E-006
NP237	5.48E-002	3.86E-005	7.44E-006	1.15E-006
PU238	9.02E-004	1.54E-002	3.92E-003	4.56E-004
U238	<LLD	<LLD	0.00E+000	1.03E-005
PU239	9.28E+000	5.76E-001	1.22E-001	1.70E-002
PU240	5.93E-001	1.35E-001	3.43E-002	3.99E-003
AM241	6.17E-001	2.12E+000	1.15E+000	4.81E-002
PU241	1.12E-002	1.16E+000	2.94E-001	3.42E-002
PU242	1.98E-003	7.82E-006	1.99E-006	0.00E+000
AM243	2.12E-003	4.24E-004	8.17E-005	6.76E-006
CM243	4.27E-007	2.09E-005	1.22E-005	6.87E-006

Errors quoted at 1.000 sigma

Operator: DEBC Date: 1·31·14

ITR: [signature] Date: 1·31·14

Automated Independent Technical Review

Count Sequence Number: 16902 Batch Number: 2LANDA1258
Counter ID: HENC #2
Container ID: 69234
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/27/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
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. 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.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.

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

Expert Review by: Sheri Chamber Date: 1-30-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69234**

BDR Number: **LA14FG2012**

Sampling Date: **1/31/2014**

S861980

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\140131c\
Data File : 69234.D
Acq On : 31 Jan 2014 1:41 pm (#1); 31-Jan-14, 13:40:56 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 13:49:59 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	3.568	96	3389428	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.871	117	2468013	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-RTR2-14-0009
Examination Date:	1/23/2014
Waste Container ID:	69237
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.: 173.5 kg Tare Wt.: 33.4 kg Net Wt.: 140.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 69237

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	18.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	122.1
Soils (S):	
Total WMP Weight:	140.1

CCP Radiography Data Sheet

Waste Container ID: 69237

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

RTR Operator:

Eddie Rios	Eddie Rios	1/23/2014
Print Name	Signature	Date

S861980

NDA 2000 Assay Report

Item Information

Item ID:	69237	Count Sequence Number:	16879
Operator:	DCLTD231\Operator		
Assay Start:	1/24/2014 3:04:20 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: 140.0 kg	Net:	140.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.840 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: 16879
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 69237

Batch Number: 2LANDA1256
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/24/2014

Net Weight	140000.0 g	
Pu mass	5.86E+001 +-	1.22E+001 g
TRU Alpha Activity	1.26E+001 +-	4.62E+000 Ci
TRU Activity Concentration	8.99E+004 +-	3.30E+004 nCi/g
Pu-239 Equivalent Activity	1.27E+001 +-	4.62E+000 Ci
Pu-239 FGE	5.53E+001 +-	1.22E+001 g
Decay heat	4.09E-001 +-	1.53E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	1.72E-010	1.94E-007	4.70E-008	8.38E-008
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.05E-006
U233	<LLD	<LLD	0.00E+000	1.16E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.49E-006
NP237	1.75E-001	1.24E-004	2.55E-005	2.55E-006
PU238	5.34E-003	9.14E-002	2.40E-002	1.10E-003
U238	<LLD	<LLD	0.00E+000	2.35E-005
PU239	5.50E+001	3.41E+000	7.54E-001	4.09E-002
PU240	3.51E+000	7.98E-001	2.09E-001	9.57E-003
AM241	2.41E+000	8.28E+000	4.56E+000	9.19E-002
PU241	6.65E-002	6.85E+000	1.80E+000	8.22E-002
PU242	1.17E-002	4.63E-005	1.22E-005	0.00E+000
AM243	4.31E-003	8.62E-004	1.78E-004	1.56E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1·28·14

ITR: Martha Eger Date: 1·30·14

Automated Independent Technical Review

Count Sequence Number: 16879
Batch Number: 2LANDA1256
Counter ID: HENC #2
Container ID: 69237
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 1/24/2014

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. 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.
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: 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: **69237**

BDR Number: **LA14FG2014**

Sampling Date: **2/3/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	308.28	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140203C\
Data File : 69237.D
Acq On : 3 Feb 2014 1:45 pm (#1); 03-Feb-14, 13:45:04 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 03 13:53:19 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	3.558	96	3085821	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.861	117	2454826	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.619	GC1	2318	308.28	ppmv	100

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