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: NOV 0 3 2014
Symbol: ENV-DO-14-0326
LAUR: 14-28142
Locates Action No.: Not Applicable

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

Dear Mr. Kieling:

Subject: Transmittal of Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 22

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 twenty-second submittal in response to comment 5 in the June 10, 2014 email request.

Enclosure 1 includes the pertinent documentation for ten 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).

Compilation of the documentation to fulfill the NMED request has been transmitted in packages as they became available. With this submittal, the Permittees have provided remediation and repackaging documentation for 232 parent waste containers. This type of documentation does not exist for the final 35 parent waste containers because the containers are remain unremediated and are located in storage at the Los Alamos National Laboratory, or the containers did not require remediation and were shipped to an off-site facility without repackaging. Therefore, this is the final submittal in response to comment 5 in the June 10, 2014 email request.

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

Sincerely,

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

Sincerely,

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

AMD:GET:MPH:LVH/kt

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 22

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)

Cy (continued):
Michael T. Brandt, ADESH, (E-File)
Raeanna R. Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
Enrique Torres, ADEP, (E-File)
James S. Clemmons, LTP, (E-File)
Donald L. Allen, LTP, (E-File)
Scott A. Miller, LTP-SSS, (E-File)
Selena Z. Sauer, LC-ESH, (E-File)
Kenneth M. Hargis, LTP-PTS, (E-File)
Mark P. Haagenstad, ENV-CP, (E-File)
Luciana Vigil-Holterman, ENV-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
env-correspondence@lanl.gov, (E-File)

Los Alamos NATIONAL LABORATORY EST. 1943

COPY

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Locates Action No.: Not Applicable

RECEIVED
NOV - 3 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 22

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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 twenty-second submittal in response to comment 5 in the June 10, 2014 email request.

Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 22
ENV-DO-14-0326
LA-UR-14-28142

October 2014

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 22

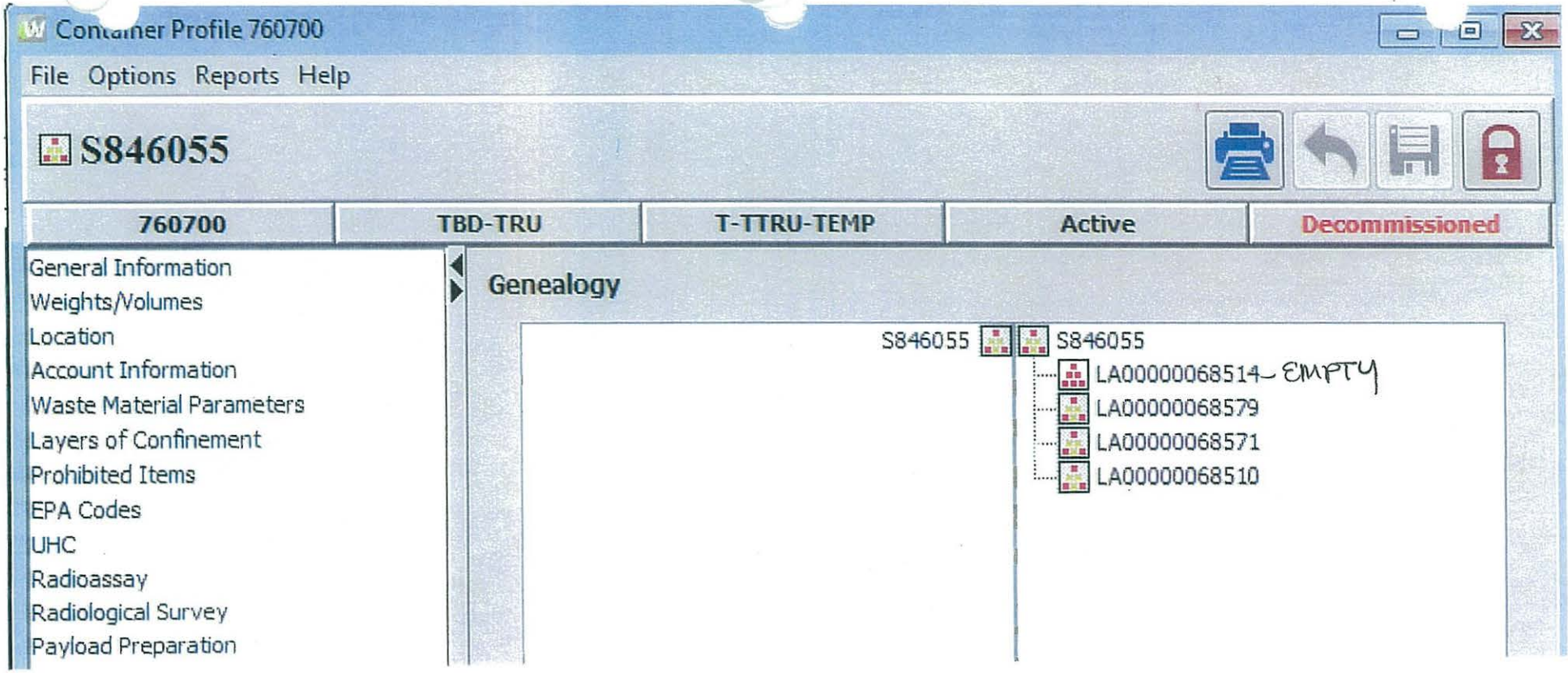
ENV-DO-14-0326

LA-UR-14-28142

Date: NOV 0 3 2014

ParentID	Intermediate Daughters	PKG_ID
S846055		68510
S846055		68571
S846055		68579
S852588	69090	69565
S852588	69090	69595
S853492		68665
S853492		68667
S853492		68669
S853898		68474
S853898		68475
S861995	68723	69064
S861995	68723	69069
S861995	68723	69103
S863787	90955	92129
S863787	90956	92192
S863787	90953	92227
S863787	90957	92678
S870338	68815	69196
S870338	68815	69209
S881608	90971	68457
S881608	90972	92364
S881608	90974	92366
S881608	90973	92888
S910170		68426
S910170		68494
S910170		68501
S910171		90315
S910171	90316	92459
S910171	90318	92461
S910171	90317	92472

S846055


Container Profile 760700
File Options Reports Help
S846055
760700
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
Genealogy
S846055
S846055
LA00000068514 - EMPTY
LA00000068579
LA00000068571
LA00000068510

Working Copy
Date: 10-28-13 EM

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S846055

6.2[4] Date Processed: 10-28-13

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

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

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

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

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

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

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

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

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

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

Performed By: ADAM SEGOVIA / [signature] Z76702 10-28-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5846055

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 445.0 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) 445.0 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.: 5846055

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68579	68571		
10.1[4]	Daughter Drum Filter No.	LM-837	LM-835	N	
10.1[4]	Daughter Drum Bag Filter No.	L-11313	L-10332		A
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BoP			
	Model No.	6CPVC1.5-25PVC			
	Serial No.	L-10300[illegible]			
	Date of Manufacture	5-13		N	
10.2[5]	POC ID No	68510			
10.2[7][B]/10.2[6]	POC Item Description	Plastic Kitty litter Nitrate Salts		A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	AR 276702			
10.2[14]	POC Assembly Gross Weight (lb)	361.8 lbs			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1,000			
10.3[3][A]	Approx. Containerized Liquid Vol./Units			N/A	
10.3[5][A]	Free Liquid Volume/Units	4 Gallons		N/A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding	Lead Shielding	N	A
10.3[9][A]	PCB-contaminated Waste Description			N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments	See comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	80%	N	A
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter Stubout Bags	Kitty Plastic Litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S846055

Comments: Nitrate Salts, Plastic, Shoe Cut Bags, Lead Shielding, 4 Gallons of liquid PH of 1 Neutralized And Absorbed with Kitty Litter, One poly liner lid 276702

11.1[1] Performed By: Adam Segovia (Waste Handling Tech (print)) (Signature) 276702 (Z #) 10-29-13 (Date)

11.1[8] Reviewed By: Clay for Mullins / CA (SOS or designee (print)) (Signature) 240092 / 10/31/13 0341 (Z # / Date/Time)

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 10-2-13

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:	±40/0cw ±60/0 ccw	±3%cw ± 6%ccw

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	JL-1894
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: MICHAEL MONTOYA / [signature] 191352 10/02/13
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: MICHAEL MONTOYA / [signature] 191352 10/02/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / CA 240091 10/31/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10 28 13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68514

7.[23] Overpack drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 10-80
Tolerance: +/- 3% cw +/- 6% ccw

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

Performed By: ADAM SEGOVIA, Adam Segovia 1276702 10-28-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[34][D] 85-gal overpack drum gross weight (lb): 166.4 lb

Comments: N/C

8.1[1] Performed By: ADAM SEGOVIA, Adam Segovia 1276702 10-29-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullis, CM 2400921 10/31/13
Supervisor or designee (print) Signature Z # Date

Date: 10-24-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68571

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BC 10-24-13 BOP
Model No.: 6CPVC1.5-25PVC
Serial No.: L-10332
Manufacture Date: 6/13

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

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

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

Performed By: Brian Gallegos / Brian Gallegos / Brian Gallegos 267129 10-24-13 (Operator (print) / Signature / Z # / Date)

5.[23] Filtered vent information:
Manufacturer: VACFil
Model No.: 01905
Serial No.: LM-835
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.: 68571

Comments: n/c

		Brian Gallegos	Bri Gallegos	247129	10-24-13
5.[35]	Performed By:	Brian Cordova		128254W	10-24-13
		Operator (print)	Signature	Z #	Date
7.1[4]	Reviewed By:	Clayton Mullins	CA	124094	10/31/13
		Supervisor or designee (print)	Signature	Z #	Date

WET 10-24-13

Working Copy
Date: N/A

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68571

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

M&TE No.:	038369
Cal. Expiration Date:	12-18-13
Range in ft-lb:	10-80
Tolerance:	+/-3% cw +/-6% ccw

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

Performed By: Adam Segovia (Operator (print)) (Signature) Z670201 (Z #) 10-8-13 (Date)

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

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

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

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

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

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

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

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

ATTACHMENT 2
Page 2 of 2

(33) 9/23/2014
68571

6.[3] Drum ID No.: ~~68579~~

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 339.0 ~~365~~ AS 10.28.13 lbs

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

Comments: N/C

6.[32] Performed By: ADAM SCGOVIA (Operator (print)) _____ (Signature) 27670 (Z #) 10-28-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) _____ (Signature) 240092 (Z #) 10/31/13 (Date)

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 10-24-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68579

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 02400 0240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: DOP
Model No.: 6epuc1.5-25pvc
Serial No.: L-11515
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:	4-200	10-80
Tolerance:	±4%CW ±6%CCW	±3%CW ±6%CCW

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

Performed By: Brandon Chavez / [signature] 1041712 10-24-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-837
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.: 68579

Comments: N/C

5.[35] Performed By: Brandon Chance / [signature] 204742 10-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 240092 10/31/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-28-13 CW

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68579

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

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 10-80
Tolerance: +/-3% cw +/-6% ccw

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

Performed By: Adam Segovia / Adam Segovia 1278702 / 10-28-13
Operator (print) Signature Z# Date

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

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

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

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

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

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

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68579

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 365.2 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: Adam Segovia (Operator (print)) _____ (Signature) 276702 (Z #) 10-28-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) _____ (Signature) 240094 (Z #) 10/31/13 (Date)

Inverted SP77

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S846055 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 463.491
Total PE-Ci Activity: 5.23E+00 Equivalent Combustible PE-Ci: 1.96E+00
Total Fissile Gram Equivalents: 5.78E+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.

RTR pre-screen indicates lead liner and impenetrable. Has vented 90 mil plastic liner.
Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 334 lbs and generator data shows 8 items of nitrate salts with weights ranging from ~13 – 62 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | T00681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: Heavy Contact Lead, Mercury, Chromium

Performed By: Johnny Smallwood (IHS Representative (Print)) | Signature | Z#25659 | 7-31-13 (Date)

LTP Engineering

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

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | Z#12609 | 8/5/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE and Kitty Litter Ratio

Performed By: G Mth (TRU Operations (Print)) | Signature | Z#K93-35 | 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 heavy gloves during processing. Use tools to handle waste when possible.

Approved By: Jose Jerez (OM or designee (Print)) | Signature | Z#22145Z | 8-13-13 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 019627

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	MX115NW1		20.000	NITRATE SALTS		8.7	52	6/14	G468
2	LR114NE1		8.860	NITRATE SALTS		2.65	52	6/14	G468
3	DS116NE1		23.300	NITRATE SALTS		8.33	52	6/14	G468
4	OX124117NW		22.180	NITRATE SALTS		7.7	52	6/14	G468
5	LR120NW1		20.680	NITRATE SALTS		10.34	52	6/14	G468
6	LR120NE1		22.840	NITRATE SALTS		9.74	52	6/14	G468
7	OX124117NE		28.060	NITRATE SALTS		12.76	52	6/14	G468
8	MX118NW1		5.910	NITRATE SALTS		1.13	52	6/14	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 210.2

Material Type	SNM (grams)	Items Net Wt (kg)
52	61.35	151.83
Totals	61.35	151.83

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 6/6/13

Container No. (5.[1])	3846055					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	019					
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])	722.28 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: Sara Aragon / 237975
CCP (Print) Z#

Reviewed By: Nathan Wales / 238866
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 S. Ramsey / 120681 / 6/13/13
Waste Handling Operator (print) Signature Z# Date

n2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130606c\
Data File : S846055.D
Acq On : 6 Jun 2013 3:36 pm (#1); 6 Jun 2013 3:35 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED-019 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 15:43:20 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	1926977	206.00 ppm	0.00
15) Chlorobenzene-d5	5.943	117	1796951	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.243	GC1	178449m	722.22 ppm	

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

Vocgas.m Thu Jun 06 15:43:28 2013

10-28-13

1800 ~~etc~~ YC 10-28-13 Assuming WCRR operations center - Coleman

1815 Pre-job and turnover from morning shift being conducted. Safety topic was eyewash stations.

1835 Pre-job concluded.

1858 Operators entering 5069 to resume operations on drum# S843594.

2056 Bagging off 1 daughter, bagging on S846055.

2126 Bag off/on complete.

10-29-13 0000 Operators out for lunch.

0118 Operators back from lunch.

0210 Bagging off 1 daughter, bagging on another daughter.

0225 Bag off/on complete.

0325 Beginning inside rounds. Beginning outside rounds.

0345 Item# 63 is OOS, Okay to proceed per CSE documentation.

0346 Inside rounds complete.

HA 0352 Outside rounds complete.

0444 Bagging off 1 daughter, 1 Poc, bagging on S804989.

0528 Bag off/on complete.

0552 Operators have identified 2 stations that need gloves changed - (1) L + (2) L+R.

0603 Both rounds reviewed by SOS.

10-29-13 0609 Being relieved by OCO, Clarissa Velarde - Coleman

No further entries this page

10/28/13 Night Shift

1815 Reviewed shift turnover checklist and assumed WCRR SOM position. Approved and posted Night shift operations watch bill and attending pre job brief.

1840 Prejob brief concluded. ES IH safety topic was eye wash stations - location and use. Also requested personnel to closely watch out for others being first night on shift in 3 weeks. Briefed workers to active shift orders WCRR-SH-13-003 R2 Manual drum movements and WCRR-SH-13-005 R.0 Precautions to prevent bag tears Discussed WCRR Design Features for daily TSR related topic.

2126 Completed all bag offs for prvent # 5843594 (2 daughters total) Bagged on drum # 5846055.

10/29/13 0000 Operators breaking for lunch.

0118 Resuming operations

0225 Completed bag off of 1 daughter - continuing processing

0330 Performed Monthly review of Operator Aid Binder. One discrepancy noted that Quarterly Combustible Loading Aid 50-11-07 R.3 was not updated in binder. Verified new revision is posted in 50-69 Updated Operator Aid # 50-10-01 R.30 for new torque wrench in use

0528 Completed all bag offs for prvent # 5846055 (2 daughters and 1 POC total). Bagged on drum # 5804989. Operators will not open drum but are ~~and~~ 10/29/13 instead wiping down glovebox and inspecting gloves.

0552 Notified by CCO that operators identified gloves @ stations #1 (L) and #2 both (L) & (R) require changing.

0610 Completed review of round sheets and compliance tracking work sheet.

10/29/13 0613 Relieved by J. Gundagnol as SOM.

No further entries this page

10/28/13 WCRR SOS Log Book

1816 Assuming SOS position. CA

1817 Starting Pre-Job with turnover from day shift on the status of the WCG. Also being cautions first night back on shift.

1838 Pre-Job complete.

2056 Bagging off, bagging on S846055.

2126 Bag off/on complete.

0210 Bagging off 1st daughter, bagging on a second.

0225 Bag off/on complete.

0444 Bagging off 2nd daughter. bagging on S804989.

0603 Signed off on the rounds.

0610 Turned over SOS position with Gilbert Martinez. CA 10/29/13

HA

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-RTR2-13-0122
Examination Date:	11/1/2013
Waste Container ID:	68510
Video/Audio Recorded Media Number:	LA-RTR2-13-0122 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.: 164.5 kg Tare Wt.: 145.1 kg Net Wt.: 19.4 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:	70 %

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2 (continued)

Waste Container ID: 68510

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	15.4
Soils (S):	
Total WMP Weight:	19.4

CCP Radiography Data Sheet

Waste Container ID: 68510

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		11/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68510		Count Sequence Number:	16666	
Operator:	DCLTD231\Operator				
Assay Start:	11/1/2013 11:42:37 AM				
Description 1:	2LANDA1236				
Description 2:	POC 164.5				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	19.4	kg	Net:	19.4 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.692	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:	16666	Batch Number:	2LANDA1236
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68510	Analysis Date:	11/1/2013

Net Weight	19400.0 g		
Pu mass	1.75E+001 +-	3.43E+000	g
TRU Alpha Activity	5.75E+000 +-	2.43E+000	Ci
TRU Activity Concentration	2.96E+005 +-	1.25E+005	nCi/g
Pu-239 Equivalent Activity	5.79E+000 +-	2.43E+000	Ci
Pu-239 FGE	1.65E+001 +-	3.42E+000	g
Decay heat	1.89E-001 +-	8.07E-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	4.51E-007
U233	<LLD	<LLD	0.00E+000	6.44E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.69E-006
NP237	5.83E-002	4.11E-005	7.54E-006	1.53E-006
PU238	1.60E-003	2.74E-002	6.89E-003	6.26E-004
U238	<LLD	<LLD	0.00E+000	1.99E-005
PU239	1.64E+001	1.02E+000	2.12E-001	2.33E-002
PU240	1.05E+000	2.39E-001	6.01E-002	5.45E-003
AM241	1.30E+000	4.46E+000	2.42E+000	5.30E-002
PU241	2.01E-002	2.07E+000	5.22E-001	4.73E-002
PU242	3.51E-003	1.39E-005	3.49E-006	0.00E+000
AM243	1.74E-003	3.49E-004	6.43E-005	9.56E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-4-13

ITR: _____ Date: 11.5.13

Automated Independent Technical Review

Count Sequence Number: 16666 Batch Number: 2LANDA1236
Counter ID: HENC #2
Container ID: 68510
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/1/2013

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

Expert Review by: _____ Date: 11/4/13 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: **68510**

BDR Number: **LA13FG2123**

Sampling Date: **12/5/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	333.68	
74-82-8	Methane	142.14	U
67-56-1	Methanol	55.85	
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\131205c\
Data File : 68510.D
Acq On : 5 Dec 2013 2:45 pm (#1); 05-Dec-13, 14:45:10 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 05 14:53:55 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	3891943	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.871	117	3058574	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.616	GC1	2509m	333.68	ppmv	
4) Methanol	0.876	31	17369m	55.85	ppmv	

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

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-RTR2-13-0122
Examination Date:	11/1/2013
Waste Container ID:	68571
Video/Audio Recorded Media Number:	LA-RTR2-13-0122 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 155.5 kg Tare Wt.: 33.4 kg Net Wt.: 122.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2 (continued)

Waste Container ID: 68571

Section 3: Container Inventory and Comments (Detailed descriptions)
IM:
AM:
OM: Scrap lead
OI:
C:
R:
XPM: Plastic bag
OR:
IN: Homogeneous solids
S:

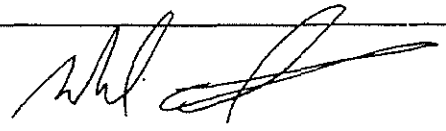
Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	100.1
Soils (S):	
Total WMP Weight:	122.1

CCP Radiography Data Sheet

Waste Container ID: 68571

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		11/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68571		Count Sequence Number:	16664	
Operator:	DCLTD231\Operator				
Assay Start:	11/1/2013 10:10:44 AM				
Description 1:	2LANDA1236				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	122.0 kg	Net:	122.0 kg	
Container:	Volume:	208.0 l	Full:	70.0 %	
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:	16664	Batch Number:	2LANDA1236
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68571	Analysis Date:	11/1/2013

Net Weight	122000.0 g		
Pu mass	3.76E+001 +-	8.04E+000	g
TRU Alpha Activity	1.03E+001 +-	4.20E+000	Ci
TRU Activity Concentration	8.47E+004 +-	3.44E+004	nCi/g
Pu-239 Equivalent Activity	1.04E+001 +-	4.20E+000	Ci
Pu-239 FGE	4.02E+001 +-	8.09E+000	g
Decay heat	3.38E-001 +-	1.39E-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	7.41E-007
U233	<LLD	<LLD	0.00E+000	9.38E-003
U234	1.02E-001	6.36E-004	1.42E-004	0.00E+000
U235	7.29E+000	1.57E-005	3.52E-006	4.72E-006
NP237	1.43E-001	1.01E-004	2.07E-005	2.20E-006
PU238	3.44E-003	5.87E-002	1.57E-002	9.38E-004
U238	3.79E+002	1.27E-004	2.74E-005	2.44E-005
PU239	3.53E+001	2.19E+000	4.97E-001	3.49E-002
PU240	2.26E+000	5.12E-001	1.37E-001	8.18E-003
AM241	2.21E+000	7.57E+000	4.17E+000	7.11E-002
PU241	4.32E-002	4.45E+000	1.19E+000	7.10E-002
PU242	7.53E-003	2.97E-005	7.96E-006	0.00E+000
AM243	2.97E-003	5.94E-004	1.23E-004	1.35E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-4-13

ITR: _____ Date: 11.5.13

Automated Independent Technical Review

Count Sequence Number: 16664 Batch Number: 2LANDA1236
Counter ID: HENC #2
Container ID: 68571
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/1/2013

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

Expert Review by: _____ Date: 11/4/13 ~~9/4/13~~ F 11/4/13

08

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68571**

BDR Number: **LA13FG2121**

Sampling Date: **11/27/2013**

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\131127C\
Data File : 68571.D
Acq On : 27 Nov 2013 10:06 am (#1); 27-Nov-13, 10:06:12 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 27 10:16:11 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	3.574	96	4707472	205.75	ppmv	0.06
15) Chlorobenzene-d5	5.884	117	3562936	177.50	ppmv	0.02
Target Compounds						Qvalue

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

5846055

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-RTR2-13-0122
Examination Date:	11/1/2013
Waste Container ID:	68579
Video/Audio Recorded Media Number:	LA-RTR2-13-0122 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.: 166.0 kg Tare Wt.: 33.4 kg Net Wt.: 132.6 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: 68579

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	120.6
Soils (S):	
Total WMP Weight:	132.6

CCP Radiography Data Sheet

Waste Container ID: 68579

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		11/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68579	Count Sequence Number:	16668
Operator:	DCLTD231\Operator		
Assay Start:	11/1/2013 1:43:20 PM		
Description 1:	2LANDA1236		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 133.0 kg	Net:	133.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
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:	16668	Batch Number:	2LANDA1236
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68579	Analysis Date:	11/1/2013

Net Weight	133000.0 g	
Pu mass	2.16E+001 +-	4.44E+000 g
TRU Alpha Activity	7.19E+000 +-	3.07E+000 Ci
TRU Activity Concentration	5.40E+004 +-	2.31E+004 nCi/g
Pu-239 Equivalent Activity	7.24E+000 +-	3.07E+000 Ci
Pu-239 FGE	2.64E+001 +-	4.60E+000 g
Decay heat	2.36E-001 +-	1.02E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.76E-007
U233	<LLD	<LLD	0.00E+000	8.04E-003
U234	1.31E-001	8.14E-004	1.70E-004	0.00E+000
U235	9.33E+000	2.02E-005	4.21E-006	5.59E-006
NP237	1.42E-001	9.99E-005	1.92E-005	2.08E-006
PU238	1.98E-003	3.38E-002	8.79E-003	8.83E-004
U238	4.44E+002	1.49E-004	2.96E-005	1.92E-005
PU239	2.03E+001	1.26E+000	2.75E-001	3.29E-002
PU240	1.30E+000	2.95E-001	7.66E-002	7.69E-003
AM241	1.63E+000	5.60E+000	3.06E+000	7.81E-002
PU241	2.49E-002	2.56E+000	6.65E-001	6.68E-002
PU242	4.33E-003	1.71E-005	4.45E-006	0.00E+000
AM243	2.05E-003	4.11E-004	7.90E-005	1.61E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-4-13

ITR: _____ Date: 11.5.13

Automated Independent Technical Review

Count Sequence Number: 16668 Batch Number: 2LANDA1236
Counter ID: HENC #2
Container ID: 68579
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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: _____ Date: 11/4/13 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: **68579**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	294.05	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

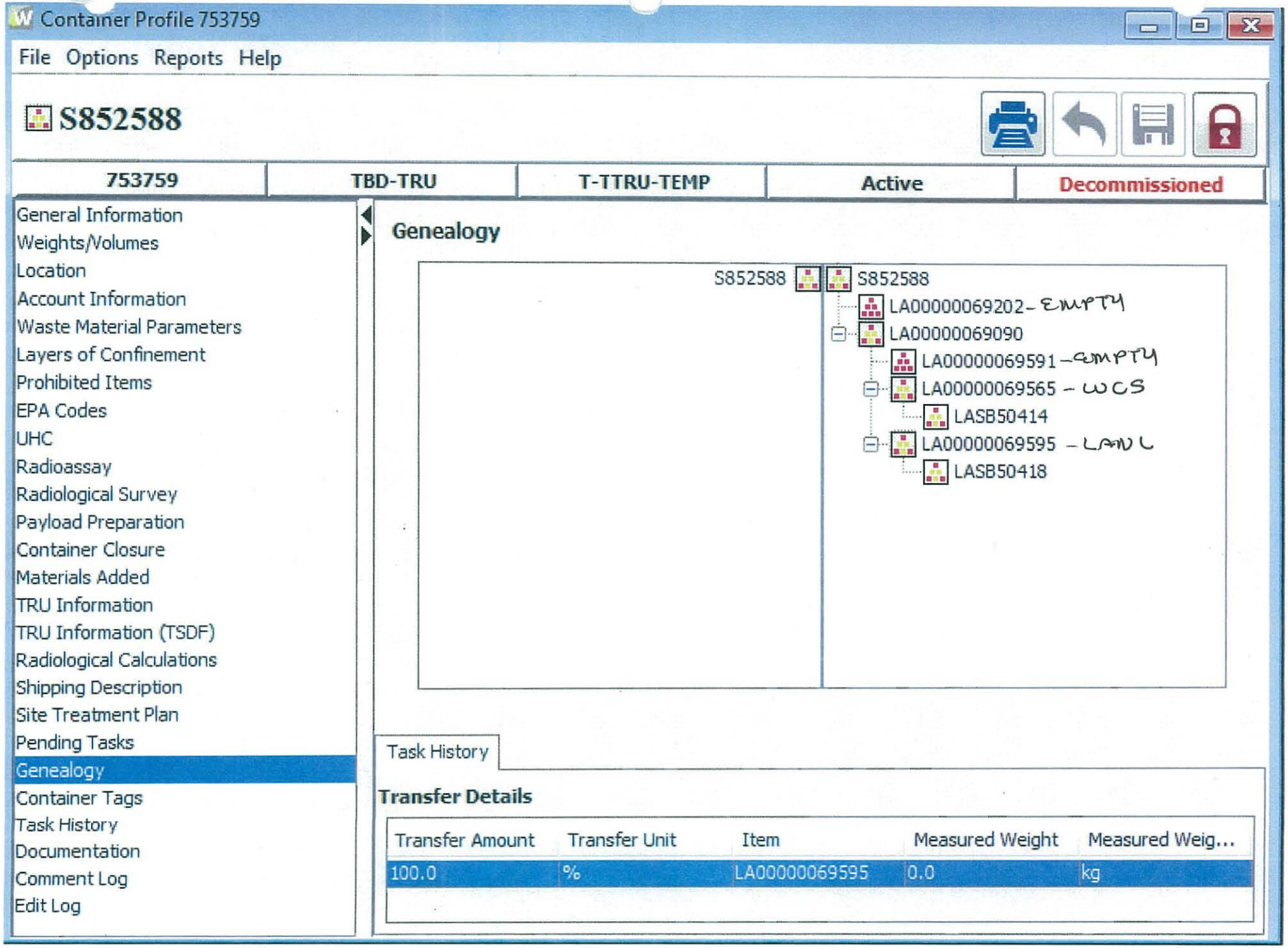
Data Path : C:\msdchem\1\DATA\131115c\
Data File : 68579.D
Acq On : 15 Nov 2013 10:19 am (#1); 15-Nov-13, 10:18:35 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 10:27:31 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.594	96	4516547	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.891	117	3567386	177.50	ppmv	0.03
Target Compounds						Qvalue
1) Hydrogen	1.614	GC1	2211m	294.05	ppmv	

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

S852588


Container Profile 753759
File Options Reports Help
S852588
753759
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
S852588
S852588
LA00000069202 - EMPTY
LA00000069090
LA00000069591 - EMPTY
LA00000069565 - WCS
LASB50414
LA00000069595 - LANL
LASB50418
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
100.0
%
LA00000069595
0.0
kg

69190
69200

Working Copy
Date: 1/10/14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S852588

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, D008, D009

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

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

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

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

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

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

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

Performed By: Brandon Chavez / [signature] 2017112 / 1-10-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S852586

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 309.0 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) 392.0 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.: 5952583

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69090			
10.1[4]	Daughter Drum Filter No.	L-10064			
10.1[4]	Daughter Drum Bag Filter No.	31-854			
10.1[4]	Daughter Drum Purchase Order No.	501892			
10.1[13][C]	WCG Fire Watch Stationed	☐ YES	☐ NO	☑ N/A	
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES	☐ NO	☐ N/A	
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	1 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.: 5852588

Comments: Lead, nitrate salts, Liquids, Kitty Litter

11.1[1] Performed By: [signature] / [signature] EG1742 / 1-1-2014
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martin / [signature] 1492351 / 1/12/14 1100
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 3/6/14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 595605

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-25PVC
Serial No.: L-10193
Manufacture Date: 5-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	8/5/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

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

Performed By: MICHAEL MONTOYA Mark Rivera 191352 3-6-14
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 01905
Serial No.: KM.344
Manufacture Date: 11-12

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

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

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

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

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

5.[34][E] Drum ID No.: 69565

Comments: N/C

5.[35] Performed By: Michael Montoya / Mark Rivera / [signature] / 191352 / P92475 / 3-6-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 149235 / 3/18/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69565

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: Brandon Chavez / [signature] 10-47-12 / 3-18-14
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:		
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

N/A

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.: 69565

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 314.8 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: Brandon Chavez / [signature] 1204742 3-18-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert [signature] / [signature] [signature] 1492351 2/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 3-13-14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69595

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc 1.5-2 Spvc
Serial No.: L-10236
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-2014	08-05-2014
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% cw +/-6% ccw	+/-3% cw +/-6% ccw

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

Performed By: Steven Mondragon / Steven Mondragon / 1047411 / 3-13-14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: ~~019~~ 019DS 3-13-14
Serial No.: KM-315
Manufacture Date: 11/12

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

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

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

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

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 69595

Comments: N/C

5.[35] Performed By: Steven Mondragon / Steven Mondragon / 1104741 / 03-13-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 149235 / 3/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69595 ~~69565~~ BC 3-18-14

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

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 16-80 ft-lb
Tolerance (+/-): ± 3% or ± 6%

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

Performed By: Brandon Chavez / [signature] 120782 / 3-18-14
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:	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.: ~~69565~~ 69595 BC 3-18-14

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 188.8 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: Brandon Chavez [signature] [illegible] 3-18-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert [illegible] [signature] [illegible] 3/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 1

Working Copy
Date: 3/13/14 HS

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

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

	Filtered Vent	2-in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	08/05/14
Tolerance:	±40/cw ±60/ccw	±39/cw ±60/ccw

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	HL-892
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: MICHAEL MONTOYA [signature] 191352 3-13-14
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: MICHAEL MONTOYA [signature] 191352 3-13-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez [signature] 142351 3/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 4
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working Copy
Date: 3/18/14 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69598

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: Brandon Chavez / [signature] 120472 / 3-18-14
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): 160.4 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 120472 3-18-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 147251 3/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1/4/14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: LAD000006909D

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.: 6CPUC 1.5-2SPVC
- Serial No.: L10064
- Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	8-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4% CW ± 6% CCW	±5% 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 Romero ERNESTO SERNA (Operator (print)) (Signature) 109702 A91898 (Z #) 1/4/14 (Date) 1/4/14

5.[23] Filtered vent information:
- Manufacturer: NVCFIL
- Model No.: 019DS
- Serial No.: JL-854
- 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 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69090

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: Brandon Chavez / [signature] / [illegible] 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:		
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

Working Copy
Date: 1/16/14 HS

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 50102
Lot No.: 023395
Manufacture Date: 12

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

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

Overpack filtered vent information:

Manufacturer: N/A
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: prepped at TA-54

8.1[1] Performed By: Brandon Chavez / _____ 120172 / 1-10-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Montano / _____ 141275 / 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
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Working Copy
Date: 1/10/14 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69202

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: 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: 019065
Platform scale calibration expiration date: 1-10-14

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

Comments: n/c

8.1[1] Performed By: Brandon Chavez [signature] 1-10-14
Waste Handling Technician (print) Signature Z # Date

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

Working Copy
1-9-14 gr

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 58525 88

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): 309.0

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

Comments: N/C

8.1[1] Performed By: Adam Segovia (Waste Handling Technician (print)) (Signature) (Z #) 1-9-14 (Date)

8.1[7] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) (Signature) (Z # 145935) 1/12/14 (Date)

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

8.1[8][D] Approved by: Gilbert Martinez (SOS/SOM or designee (print)) (Signature) (Z # 114923) 1/12/14 (Date) 1100 (Time)

Inspected SP70

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S852588 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 326.34
Total PE-Ci Activity: 1.92E+01 Equivalent Combustible PE-Ci: 7.18E+00
Total Fissile Gram Equivalents: 1.97E+02 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

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

RTR pre-screen indicates ~3 gallons of liquid throughout drum and @ the bottom

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~190 lbs. and generator data show 13 items of nitrate salts with weights ranging from ~10 – 28 lbs.

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

IHS Representative

Potential IHS Safety Risks: Many Cantium, lead, mercury, [illegible]

Performed By: Tommy Smallwood [signature] 241655 7-31-13
IHS Representative (Print) Signature Z# Date

LTP Engineering

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

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

TRU Remediation Operations

Potential Safety Risks: Use proper PPE and kitty litter paste

Performed By: G Mt [signature] 149235 8/12/13
TRU Operations (Print) Signature Z# Date

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Do not push or press on waste with hands. Use hexarmor glove during processing. Use tools to handle waste when possible

Approved By: Jose Jorez [signature] 221452 8-13-13
OM or designee (Print) Signature Z# Date

Noncertified TRU Waste Drum Item Information

DrumID: 019647

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
2	LCU16145NE		8.860	NITRATE SALTS		13.71	53	6/14	G468	
3	LCU17159NW		4.490	NITRATE SALTS		20.42	53	6/14	G468	
4	LCU17159NW		4.490	NITRATE SALTS		820.	12	9	G468	
5	MX165NE1		4.775	NITRATE SALTS		29.46	53	6/14	G468	
6	MX165NE1		4.775	NITRATE SALTS		1000.	12	9	G468	
7	UOX10192NE		12.040	NITRATE SALTS		9.01	53	6/14	G468	
8	UOX10192NW		10.120	NITRATE SALTS		19.1	53	6/14	G468	
9	UOX10192		10.120	NITRATE SALTS		12.8	36	13/4	G468	
10	LCU19217NW		6.820	NITRATE SALTS		24.1	53	6/14	G468	
11	LCU19217NW		6.820	NITRATE SALTS		2.56	81	9	G468	
12	LCU202-2			NITRATE SALTS		6.92	23	9	G468	
13	LCU20263NW		12.950	NITRATE SALTS		77.44	53	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 148.

Material Type	SNM (grams)	Items Net Wt (kg)
12	1820.	9.26
23	6.92	0.00
36	12.8	10.12
53	193.24	60.06
81	2.56	6.82
Totals	2035.5	86.26

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])	3852588					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	0.72					
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])	242.70 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero (CCP (Print)), 236973 (Z#)

Reviewed By: Rick Jagielski (CCP (Print)), 266088 (Z#)

Comments:

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

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

6.1[3] Performed By: Susan Ramsey, Susan S. Ramsey, 100681, 5/28/13
Waste Handling Operator (print) / Signature / Z# / Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S852588.D
Acq On : 28 May 2013 12:02 pm (#1); 28-May-13, 12:01:58 (#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 12:11:48 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	3.575	96	4472575	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.904	117	3806584	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.603	GC1	1725m	242.70	ppmv	

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

vocgas.m Tue May 28 12:12:14 2013

10-14

0600 ASSUMING OPERATIONS CENTER HSMITH
0615 STARTING PRE-JOB BRIEFING
0630 PREJOB BRIEFING CONCLUDED
0640 STARTING OUTSIDE ROUNDS
0649 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 SAS
0729 MODE CHANGE INCREASE TO OPERATIONS IN WCRF 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 IN TO TA50-194/75
1126 OPERATORS NOTIFIED ~~OPERATORS~~ 11/6/14 HS OPS CENTER OF BROKEN LED LINED GLASS ON GLOVE BOX STATION 2
1220 OPERATORS EXIT FOR LUNCH
1346 BEING RELIEVED BY OCO CLARISA VELARDE, HSMITH
1351 Assuming WCRRF Operations Center (CVelarde)
1355 Late entry - Vehicle access gates have been restored shipment into WCRRF complete 1338 CV.
1435 Bag on, Bag off complete.
1440 Movement into 50-69 being performed.
1500 movement into 50-69 complete, ~~Bag on Bag off complete~~ 11-20-14.
1523 Starting inside rounds
1531 Item 63 @ 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 468761
1647 Bag on, Bag off complete.
- Continued on next page - CVelarde

PROJECT NAME WCRR SCS LOGBook NOTEBOOK NO.

1/10/14

0600 Assuming SCS Position [illegible] M.G

0615 Conducted SWFI Brief went over drums Inside 50-64 Also went over EP-WCRR-FO-DOP-1192, R.0

0640 Concluded shift brief

0719 Sighted off Inside and outside Rounds

0729 Mode Change Complete WCRRF In Operations Mode Late entry Operator In to process at 0700 [illegible]

0805 Bagging on 5852588

0817 Bag on Complete

1000 Bagging off/on 5844265

1083 Bag on Complete

1050 Starting Shipment In Form 6

1125 Operators notified at Hooker Lad Lund Glass on Station 2

1211 Operator exiting for Lunch

1236 Shipment Complete

1320 Operator Returning operations

1416 Bagging off/on 68754

1455 Bag on left Complete

1446 Moving [illegible] building 8165

1500 Move to Complete

1523 Starting Rounds

1545 Starting Move out of 50-64

1615 Move out Complete

1619 Bagging off/on 68761

1647 Bag on left Complete

1646 Reviewed Inside and outside Rounds

1745 Bagging at last drum of Day

1808 Bag off Complete

1821 Mode Change Complete WCRRF In [illegible] [illegible]

1/10/14 1850 Securing SCS Position end of shift [illegible]

HA

no further entries on this page

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

254

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 Prejob brief conducted by SOS (G Martinez) concerning 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 POD 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 pivot # 68754 (1 daughter total), bagged on drum # 68761.

1808 Completed all bag offs for pivot # 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
KRA

ATTACHMENT 1
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Working Copy
Date: 3/13/14 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 69090

6.2[4] Date Processed: 3-18-14

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

4.1[6][B] Parent Waste Container RCRA Designations: D007A, D008A, D009A

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 3-18-14 B 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) JA 3-18-14 (Initial and Date)

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

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

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

Performed By: Frederick Arbuckle / [signature] 1228624 / 3-18-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
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9/23/14

4.1[6][B]	Parent Waste Container No.: ~~69060~~ 69090	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	388.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb ☐ N/A
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	388.2 lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[16]	Retaining clips in place	☑ SAT ☐ UNSAT
6.2[18][D]	Drum lift hinge pin retaining clip replaced. ____ / ____ / ____ Initials Z# Date	☑ N/A

6.2[26] Approval to leave a parent drum attached to the WCG overnight:

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: ~~69565~~ 69090 BC 3-18-14

fn 9-24-14

Daughter Drums			69595		
10.1[4]/10.2[4]	Daughter Drum No.	69565	~~69565~~		
10.1[4]	Daughter Drum Filter No.	KM-314	KM-315	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10193	L-10236	A	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[19][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[20][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[6]/10.2[7][B]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)			N/A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead			
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A		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 (%)	90%	60%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter plastic	Kitty Litter Plastic		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 69090

Comments: nitrate salts, plastic, Lead, kitty litter, Hex-armor, Hepa filter

11.1[1] Performed By: Brandon Chavez / [signature] 1204712 / 3-18-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [signature] 1497235 / 3/19/14 0800
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 1
Page 1 of 1

Working Copy
Date: 3/13/14 HS

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

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

	Filtered Vent	2-in. Bung
M&TE No.:	101310	036295
Cal. Expiration Date:	11/12/14	08/05/14
Tolerance:	±40/cw ±60/ccw	±30/cw ±60/ccw

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	HL-892
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: MICHAEL MONTOYA [signature] 191352 3-13-14
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: MICHAEL MONTOYA [signature] 191352 3-13-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez [signature] 142351 3/13/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 4
Page 1 of 1

working Copy
Date: 3/18/14 11S

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69591

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: Brandon Chavez / [signature] 120782 / 3-18-14
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: 10-1414

7.[34][D] 85-gal overpack drum gross weight (lb): 160.4 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 120782 3-18-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 114275 3/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 3-6-14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69565

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC15-25PVC
Serial No.: L-10193
Manufacture Date: 5-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	8/5/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% CW +/-6% CCW	+/-3% CW +/-6% CCW

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

Performed By: MICHAEL MONTOYA Mark Rivera (Operator (print)) (Signature) 191352 (Z #) 3-6-14 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 01905
Serial No.: KM-344
Manufacture Date: 11-12

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

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

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

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

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

5.[34][E] Drum ID No.: 69565

Comments: N/C

5.[35] Performed By: Michael Montoya / Mark Rivera / [signature] / 191352 / P92475 / 3-6-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / [illegible] / 3/6/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69565

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: Brandon Chavez / [signature] 2047212 / 3-18-14
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:		
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

N/A

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.: 69565

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 314.8 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: Brandon Chavez / [signature] 2014-02 3-18-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 442351 2/18/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 3-13-14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69595

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc 1.5·2 Spvc
Serial No.: L-10236
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-2014	08-05-2014
Range:	40·200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/- 4% cw +/- 6% ccw	+/-3% cw +/-6% ccw

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

Performed By: Steven Mondragon (Operator (print)) / Steven Mondragon (Signature) / 1104741 (7. #) / 03-13-14 (Date)

5.[23] Filtered vent information:
Manufacturer: Nucf.1
Model No.: ~~019~~ 019DS 3-13-14
Serial No.: KM·315
Manufacture Date: 11/12

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

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

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

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

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 69595

Comments: N/C

5.[35] Performed By: Steven Mondragon / [signature] / 104741 / 03-13-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 149235 / 3/19/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69595 ~~69565~~ BC 3-18-14

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

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 10-80 ft-lb
Tolerance (+/-): ±3% or ±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] 120742 / 3-18-14
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:	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.: 69595 ~~69565~~ BC 3-18-14

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 188.8 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: Brandon Chavez (Operator (print)) (Signature) 204782 (Z #) 3-18-14 (Date)

7.1[4] Reviewed By: Gilbert Hawkins (Supervisor or designee (print)) (Signature) 164275 (Z #) 3/19/14 (Date)

ATTACHMENT 3
Page 1 of 1

1-9-14 [illegible]

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5852588

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): 309.0

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

Comments: N/C

8.1[1] Performed By: Adam Segovia [signature] 2767021 1-9-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 1492351 1/12/14
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: Gilbert Martinez [signature] 1492351 1/12/14 1100
SOS/SOM or designee (print) Signature Z # Date Time

SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: 69020 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 383.6
Total PE-Ci Activity: 3.23E+01 Equivalent Combustible PE-Ci: 2.81E+01
Total Fissile Gram Equivalents: 2.16E+02 Total Surface Dose Rate (mrem/hr): 29.8
EPA Code(s): D007A; D008A; D009B
Waste Description: LA-MIN02-V.001

Remediation/Characterization Activities: Container consists of Nitrate Salts that have been remediated previously at WCRRF. Container is a High FGE container and needs to be split. Container is >325 FGE. SEDS for parent container, remediation documentation from WCRRF and RTR video are include in this package. ~~CONTAINER TO BE SPLIT INTO 2 DAUGHTERS~~ BJ 3/4/14

CONTAINER TO BE SPLIT INTO 2 DAUGHTERS Per FGE values.

Potential Safety Risks: Container may contain lead, chromium and mercury.

Performed By: Barbara Trujillo (LTP-PTS (Print)) [signature] (Signature) 167341 (Z#) 3/4/2014 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, Mercury and chromium as listed elevated FGE Based WCRR Report.

Performed By: Johnny Smallwood (IHS Representative (Print)) [signature] (Signature) 124659 (Z#) 3-4-14 (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] (Signature) 112609 (Z#) 3/4/14 (Date)

TRU Remediation Operations

Potential Safety Risks: USE proper PPE follow instructions above and To split drum

Performed By: Gilbert Martinez (TRU Operations (Print)) [signature] (Signature) 166135 (Z#) 3/4/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Follow current procedures and EWO's.

Approved By: Darrell L. Blair (OM or designee (Print)) [signature] (Signature) 121B069 (Z#) 3-6-14 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 019647

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
2	LCU16145NE		8.860	NITRATE SALTS		13.71	53	6/14	G468	
3	LCU17159NW		4.490	NITRATE SALTS		20.42	53	6/14	G468	
4	LCU17159NW		4.490	NITRATE SALTS		820.	12	9	G468	
5	MX165NE1		4.775	NITRATE SALTS		29.46	53	6/14	G468	
6	MX165NE1		4.775	NITRATE SALTS		1000.	12	9	G468	
7	UOX10192NE		12.040	NITRATE SALTS		9.01	53	6/14	G468	
8	UOX10192NW		10.120	NITRATE SALTS		19.1	53	6/14	G468	
9	UOX10192		10.120	NITRATE SALTS		12.8	36	13/4	G468	
10	LCU19217NW		6.820	NITRATE SALTS		24.1	53	6/14	G468	
11	LCU19217NW		6.820	NITRATE SALTS		2.56	81	9	G468	
12	LCU202-2			NITRATE SALTS		6.92	23	9	G468	
13	LCU20263NW		12.950	NITRATE SALTS		77.44	53	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 148.

Material Type	SNM (grams)	Items Net Wt (kg)
12	1820.	9.26
23	6.92	0.00
36	12.8	10.12
53	193.24	60.06
81	2.56	6.82
Totals	2035.5	86.26

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 3/5/2014

Container No. (5.[1])	69090					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55gal					
Filtered Vent Type (5.[1])	019 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])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1049.05 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	9429 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Rick Jagielski (CCP (Print)) 260088 (Z #)

Reviewed By: Erik Loechell (CCP (Print)) 234183 (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 (Waste Handling Operator (print)) Barbara Trujillo (Signature) 16734 (Z #) 3/5/14 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140305C\
Data File : 69090.D
Acq On : 5 Mar 2014 2:51 pm (#1); 05-Mar-14, 14:50:23 (#2)
Operator : RJ
Sample :
Misc : 55 Gal drum through unobstructed Nucfil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 05 14:58:59 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	3524514	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.878	117	2766634	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.607	GC1	7888	1049.05	ppmv	100
4) Methanol	0.883	31	26539	94.24	ppmv	100

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

3-18-14

0600	ASSUMING WCREF OPERATIONS CENTER HSMITH
0615	STARTING PRE-JOB BRIEFING
0630	STARTING INSIDE ROUNDS
0638	ITEM #63 INSIDE ROUNDS DOS. POD IN PLACE. PERMISSION TO PROCEED PER CSE DOCUMENTATION
0640	STARTING OUTSIDE ROUNDS
0645	PRE-JOB BRIEFING COMPLETE
0650	INSIDE ROUNDS COMPLETED
0651	RP-1 NONISCA OPS CENTER TRIDIUM SMEARS FROM 3/17/14 WERE RETURNED NDA.
0700	OUTSIDE ROUNDS COMPLETED
0704	ROUNDS REVIEWED BY SOS.
0820	STARTING GLOVE CHANGE STATION #3 LEFT GLOVE
0843	GLOVE CHANGE COMPLETE
0844	MAINTENANCE ENTERS TA50-69 TO INSTALL MOUSE TRAPS WO # 468370-03 PEST CONTROL
0902	MAINTENANCE EXIT & COMPLETE WORK ORDER
0905	HOOD CHANGE INCREASE TO OPERATIONS IN TA50-69 AND WCRR YARD.
0910	SERVEILLANCE 4.2.4 WILL NOT BE PERFORMED, DUE TO UTILITIES UNAVAILABILITY
0920	TECH 14 NOTIFIED OPERATIONS CENTER THAT RLT REQUESTED THEY STEP BACK FROM BOX DUE TO HIGH DOSE RATE
0923	OPERATORS BACK TO PROCESSING
0954	BAGGING OFF 3 POC, BAGGING ON 68981
1105	BAG ON - BAG OFF COMPLETED BAGGED OFF 3 POC'S AND 1 DAUGHTER
1258	BAGGING OFF - BAGGING ON 69090
1330	BAG OFF COMPLETED
1332	PERMISSION GRANTED TO BEGIN MOVEMENT INTO TA50
1334	INVENTORY INFORMS OPERATIONS CENTER 4.1.1 HAS BEEN PERFORMED AND INVENTORY IS WITHIN LIMITS
1409	TRANSPORTAINER DOORS SECURED, MOVEMENT INTO TA50 COMPLETED. HS

CONTINUED ON NEXT PAGE HSMITH

3-18-14	CONTINUED FROM PREVIOUS PAGE HSMITH
1424	BAGGING OFF AND CONTINUING TO PROCESS
1444	BAG OFF COMPLETE
1530	STARTING OUTSIDE ROUNDS
1545	BAGGING OFF AND BAGGING ON ~~S6 579935~~ 3/18/14 S793750. OUTSIDE ROUNDS COMPLETED
1607	BAG ON-BAG OFF COMPLETED
1612	STARTING INSIDE ROUNDS
1633	ITEM #63 INSIDE ROUNDS ODS, POD IN PLACE PERMISSION TO PROCEED PER CSE DOCUMENTATION.
1634	INSIDE ROUNDS COMPLETED
1650	SDS RECIEVED PERMISSION FROM OM TO LEAVE DRUM BAG ON OVERNIGHT, ROUNDS REVIEWED BY SDS
1653	BAGGING OFF DAUGHTER, LEAKING DRUM BAGGED ON OVERNIGHT
1705	BAG OFF COMPLETED, GLOVEBOX IN SAFE CONFIGURATION
1725	OPERATORS EXIT BUILDING
1737	MODE CHANGE TO WARM STANDBY AT TA50-69 AND WCRR YARD
3/18/14 1800	END OF DAY WCRR OPERATIONS CENTER SECURED HSMITH

NO FURTHER ENTRIES THIS PAGE HSMITH

PROJECT NAME WCRR SCS LOG BOOK NOTEBOOK NO.

3/10/14

0600 Assuming SCS Position. [illegible]

0635 Conducting Shift Brief Discussed Drums in Facility [illegible] [illegible] [illegible] Started Rounds

0640 Shift Brief complete

0704 Removed Drums And outside Rounds

0801 Starting Glove Changes Station 2 Left

0843 Glove Change Complete

0844 Maintenance enter to Install mouse traps

0862 Maintenance complete

0905 Mode Change Complete WCRF In operations

0910 4.2.4 will not be performed due to utilities personnel not available.

0926 Per RCT's operators need to stop back till further notice

0928 Operators back processing.

0931 Bagging off 3 PGCs Bagging on 68981

1105 Bag on/off complete

1258 Bagging off Bagging on 69090

1336 Bag off complete.

1332 Permission to Start movement

1409 Movement Complete

1424 Bagging off and Continuing to Process

1444 Bag off complete

1530 Started Rounds [illegible]

1545 Bag off [illegible] ~~complete~~ 5793750

1607 Bag off / on complete

1655 Permission Granted to leave drum bagged on [illegible] and outside Rounds

1659 Bagging off 1 Chapter [illegible] drum [illegible] [illegible]

1727 Mode Change to [illegible]

1835 Exit off Day [illegible] SCS Position [illegible]

No Further Entries on this Page

SIGNATURE _____ DATE _____ 20 ____

READ AND UNDERSTOOD _____ DATE _____ 20 ____

3-18-14 WCRR-SOM

0554 Reviewed logs and assumed the WCRR SOM position John Guadagni

0642 Completed attending the pre-job brief conducted by the SOS (Gilbert) The safety topic was ensure cleaning of respirators correctly. Activities planned for today include processing, of the source drum, and recording which items go into the POCs and the wraps required with the tungsten blanket. The monthly Valve Alignment is scheduled, the Quarterly combustible SR is scheduled, and characterization will be conducted 3 drums total. Operations will be required to change a glove prior to start of work. There are no scheduled transfers to or from WCRRF. Shift Standing Orders were reviewed and shift Orders in effect were reviewed.

0644 The tritium surveys were obtained and the RR-1 group indicated surveys were good.

0707 Completed the daily phone call to AREA 6 updating POD activities

0728 Turned the WCRR SOM over to Randy Axtell John Guadagni

0728 Reviewed logbook and received face to face turnover from J. Guadagni. Assumed WCRR SOM position.

0846 Extended WO # 468320-03 FY14 Pest Control for WCRR for 60 days to expire 3/27/14. Released for work to allow mouse traps in 50-69 dressing room.

0903 Pest control completed setting of traps, exited the L4, work package closed out

0904 Late Entry @ 0850 notified by OCO that glove change is complete RRA

0905 Completed Mode Change: WCRR yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0910 OCO reported that Monthly Valve Alignment FSS cannot be performed today due to Utilities has no support for offsite valve recess.

1105 Completed all bag offs for parent # 69372 (3 POC's total) (+1 Daughter and bagged on 68981

1200 Called into weekly solutions package update w/ OM and OSPRT, SP Managers, others as well as daily call in.

1230 Attending training session for Division Equipment Status procedure changes given by J Disalle.

1330 Completed all bag offs for parent # 68981 (1 Daughter total) and bagged on drum # 69090.

1444 Completed a bag off of 1 daughter - continuing to process.

continued on next page →

mg 3/18/14 · 3/18/14 WCRR SOM Continued

~~1545~~ 1607 Completed all bag offs for parent # 69090 (2 daughters total) and bagged on drum # 5793750

1650 Notified by SOS that drum on WCG will not be completely processed prior to COB. Obtained permission from OM to leave drum on WCG overnight.

1705 Completed bag off of 1 daughter - placed all other waste back into parent drum - WCG in safe configuration

1737 Completed Mode Change: WCRR yard and Bldg 50-69 from Operation / Operation to Warm / Warm.

1745 Notified by RP-1 that HPAL support was not at HPAL facility - on call personnel were enroute to facility and receive H-3 smears. Analysis still to be completed overnight.

1800 Secured the SOM position.

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-HERTR-14-0043
Examination Date:	3/31/2014
Waste Container ID:	69565
Video/Audio Recorded Media Number:	LA-HERTR-14-0043 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.: 143.0 kg Tare Wt.: 33.4 kg Net Wt.: 109.6 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 %

Waste Container ID: 69565

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):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	83.6
Soils (S):	
Total WMP Weight:	109.6

Waste Container ID: 69565

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	3/31/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69565		Count Sequence Number:	17074	
Operator:	DCLTD231\Operator				
Assay Start:	4/1/2014 11:42:34 AM				
Description 1:	2LANDA1279				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, Be < 1%				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	110.0 kg	Net:	110.0 kg	
Container:	Volume:	208.0 l	Full:	80.0 %	
Density:		0.660 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:	17074	Batch Number:	2LANDA1279
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69565	Analysis Date:	4/1/2014

Net Weight	110000.0 g	
Pu mass	1.44E+002 +-	2.68E+001 g
TRU Alpha Activity	2.37E+001 +-	6.77E+000 Ci
TRU Activity Concentration	2.15E+005 +-	6.16E+004 nCi/g
Pu-239 Equivalent Activity	2.42E+001 +-	6.77E+000 Ci
Pu-239 FGE	1.45E+002 +-	2.68E+001 g
Decay heat	7.65E-001 +-	2.24E-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	1.35E-006
U233	<LLD	<LLD	0.00E+000	1.60E-002
U234	2.64E-001	1.64E-003	2.96E-004	0.00E+000
U235	1.88E+001	4.07E-005	7.36E-006	4.76E-006
NP237	2.08E-001	1.46E-004	2.61E-005	3.75E-006
PU238	3.94E-002	6.74E-001	1.67E-001	6.28E-003
U238	2.86E+003	9.62E-004	1.75E-004	8.90E-005
PU239	1.31E+002	8.15E+000	1.65E+000	7.59E-002
PU240	1.22E+001	2.77E+000	6.84E-001	2.58E-002
AM241	3.52E+000	1.21E+001	6.53E+000	1.22E-001
PU241	2.97E-001	3.06E+001	7.57E+000	2.85E-001
PU242	1.03E-001	4.05E-004	1.00E-004	0.00E+000
AM243	7.23E-003	1.45E-003	2.59E-004	2.23E-005

Errors quoted at 1.000 sigma

Operator: D=RC Date: 4-2-14

ITR: [signature] Date: 4-2-14

Automated Independent Technical Review

Count Sequence Number: 17074 Batch Number: 2LANDA1279
Counter ID: HENC #2
Container ID: 69565
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/1/2014

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
NCC Pu mass was above calibration range.	Be in drum. Neutron results rejected. Gamma results applied.
FGE is greater than the upper limit of 200.00	
The Standard NCC Pu effective mass exceeds the Upper Calibration Limit.	
No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root.	
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
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-53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
U-235 mass is greater than the upper limit of 10.0 g.	U235 verified by gamma spectrum and AK. Results valid.
Total U mass is greater than the upper limit of 500.0 g.	After EA review, results valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chamberlain Date: 4-2-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69565**

BDR Number: **LA14FG2050**

Sampling Date: **4/2/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	506.97	
74-82-8	Methane	142.14	U
67-56-1	Methanol	51.76	
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\140402c\
Data File : 69565.D
Acq On : 2 Apr 2014 4:14 pm (#1); 02-Apr-14, 16:13:22 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 16:27:54 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	3.558	96	3501699	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.864	117	2801483	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.625	GC1	3812m	506.97	ppmv	
4) Methanol	0.883	31	14482	51.76	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-HERTR-14-0043
Examination Date:	3/31/2014
Waste Container ID:	69595
Video/Audio Recorded Media Number:	LA-HERTR-14-0043 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.: 85.5 kg Tare Wt.: 33.4 kg Net Wt.: 52.1 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:	65 %

Waste Container ID: 69595

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal hardware, scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	
R:	
XPM:	Plastic sheeting, plastic bags
OR:	
IN:	Homogeneous solids
S:	

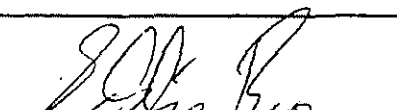
Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	2.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	45.1
Soils (S):	
Total WMP Weight:	52.1

Waste Container ID: 69595

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		3/31/2014
Print Name	Signature	Date

5852588

NDA 2000 Assay Report

Item Information

Item ID:	69595		Count Sequence Number:	17066	
Operator:	DCLTD231\Operator				
Assay Start:	3/31/2014 2:40:29 PM				
Description 1:	2LANDA1278				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, Be <1%				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	52.1 kg	Net:	52.1 kg	
Container:	Volume:	208.0 l	Full:	65.0 %	
Density:		0.390 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:	17066	Batch Number:	2LANDA1278
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69595	Analysis Date:	3/31/2014

Net Weight	52100.0 g		
Pu mass	5.54E+001 +-	7.96E+000	g
TRU Alpha Activity	8.56E+000 +-	2.23E+000	Ci
TRU Activity Concentration	1.64E+005 +-	4.28E+004	nCi/g
Pu-239 Equivalent Activity	8.76E+000 +-	2.23E+000	Ci
Pu-239 FGE	5.74E+001 +-	7.95E+000	g
Decay heat	2.76E-001 +-	7.38E-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	5.66E-007
U233	<LLD	<LLD	0.00E+000	7.06E-003
U234	1.41E-001	8.75E-004	1.17E-004	0.00E+000
U235	1.01E+001	2.17E-005	2.91E-006	2.00E-006
NP237	8.79E-002	6.20E-005	8.20E-006	1.63E-006
PU238	1.51E-002	2.59E-001	5.46E-002	2.42E-003
U238	2.32E+003	7.80E-004	1.06E-004	4.86E-005
PU239	5.05E+001	3.13E+000	4.90E-001	2.93E-002
PU240	4.68E+000	1.06E+000	2.24E-001	9.93E-003
AM241	1.20E+000	4.10E+000	2.16E+000	5.31E-002
PU241	1.14E-001	1.18E+001	2.48E+000	1.10E-001
PU242	3.94E-002	1.56E-004	3.28E-005	0.00E+000
AM243	2.98E-003	5.97E-004	7.96E-005	9.78E-006

Errors quoted at 1.000 sigma

Operator: Martha Gonzales Date: 4.1.14

ITR: [signature] Date: 4-2-14

Automated Independent Technical Review

Count Sequence Number: 17066 Batch Number: 2LANDA1278
Counter ID: HENC #2
Container ID: 69595
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/31/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; 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.
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 verified by gamma spectrum and AK. Results valid. After EA review results valid.

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

Expert Review by: Sheri Chamberlain Date: 4-1-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69595**

BDR Number: **LA14FG2050**

Sampling Date: **4/2/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	198.82	
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)

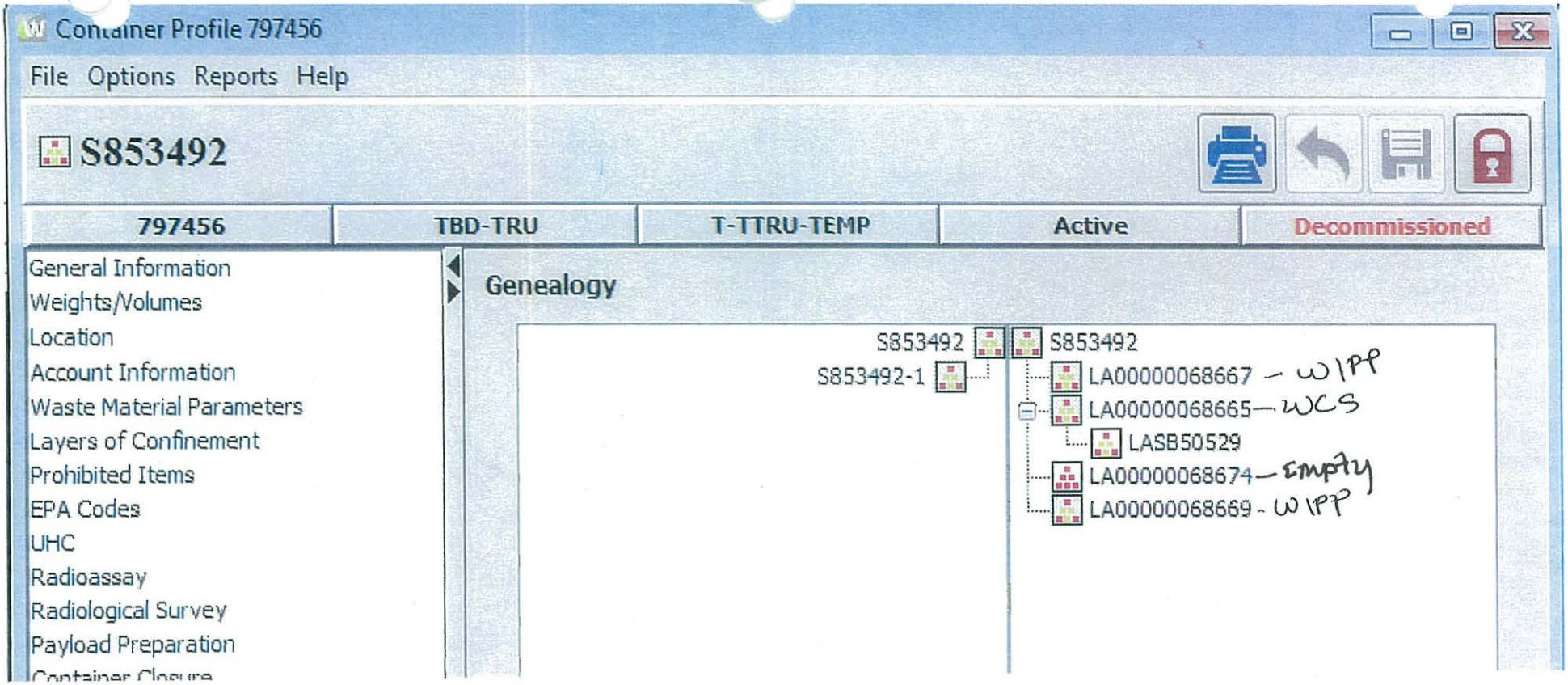
Data Path : C:\msdchem\1\DATA\140402c\
Data File : 69595.D
Acq On : 2 Apr 2014 3:49 pm (#1); 02-Apr-14, 15:48:43 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 15:58:16 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	3507161	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.868	117	2796272	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.625	GC1	1495m	198.82	ppmv	

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

S853492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File Options Reports Help
S853492
797456
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
Genealogy
S853492
S853492-1
S853492
LA00000068667 – WIPP
LA00000068665 – WCS
LASB50529
LA00000068674 – empty
LA00000068669 - WIPP

ATTACHMENT 1
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Working Copy
Date: 11/14/13 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5853492

6.2[4] Date Processed: 11-14-13

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.: 619965
Cal. Due Date: 10-14-14

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

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

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

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

Performed By: Edward Martinez 1239911 11-14-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
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4.1[6][B]	Parent Waste Container No.: 5853492	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	498.6 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)	520.6 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
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KM 9-24-14

4.1[6][B] Parent Waste Container No.: 5853492

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68667	68669	68665	
10.1[4]	Daughter Drum Filter No.	LM-858	LM-862	LM-852	N/A
10.1[4]	Daughter Drum Bag Filter No.	L-11505	L-11498	L-11513	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578	501578	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
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	6 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding	Lead Shielding	lead shielding	
10.3[9][A]	PCB-contaminated Waste Description		N/A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	See Comments	See Comments	N/A
10.3[13]/10.4[10]/10.5[4]/10.6[10]	Daughter Drum % Full (%)	40%	cm 11-15-13 ~~N/A~~ 100%	cm 11-15-13 ~~N/A~~ 110%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter	Kitty litter	Kitty litter	

ATTACHMENT 1
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4.1[6][B] Parent Waste Container No.: 5853492

Comments: Nitrate, salts, Kitty litter, plastic

11.1[1] Performed By: Clayton Mullis / CM 124092 / 11-15-13 11/15/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Jerez / Jose Jerez 122452 / 11/15/13 0545
SOS or designee (print) Signature Z # Date/Time

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Date: 11/14/13 HS

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238367
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: NucFil
Model No.: Q19
Serial No.: LM-3589
Manufacture Date: 12/12

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

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

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

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

Comments: was not prepped at TA-50

8.1[1] Performed By: Edward Martinez / [signature] 1221411 11-14-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Jerez / [signature] 122452 11/15/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
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Working Copy
Date: 11/14/13 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68674

7.[23] Overpack drum closure ring torque wrench information:
- M&TE No.: 036245
- Cal. Expiration Date: 08/05/2014
- Range in ft-lb: 16-80
- Tolerance: +/- 3% CW and +/- 6% CCW

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

Performed By: Edward Martinez / [signature] / 1279994 / 11-14-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[34][D] 85-gal overpack drum gross weight (lb): 169.4 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins / [signature] / 2400871 / 11/15/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Juarez / [signature] / 1221521 / 11/15/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
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Date: 11/13/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68667

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.: 6CAVC 1.5-2 SAR
Serial No.: L-11505
Manufacture Date: 6/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	160216	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: Frederick [illegible] / [illegible] 1228[illegible] / 11-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019 DS
Serial No.: LM-858
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
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5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

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

5.[34][E] Drum ID No.: 68667

Comments: N/C

5.[35] Performed By: Frederick [illegible] | [signature] | 1225624 | 11-12-13
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Jose Jerez | [signature] | 1221421 | 11/13/13
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 2
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WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68667

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

M&TE No.: 036245
Cal. Expiration Date: 08/05/2014
Range: 16-80 ft-lb
Tolerance (+/-): +/- 3% CW and +/- 6% CCW

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

Performed By: Edward Martinez (Operator (print)) [signature] (Signature) 1239441 (Z #) 11-14-13 (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:	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)) N/A (Signature) _____ (Z #) _____ (Date)

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

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

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6.[3] Drum ID No.: 68667

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 231.0 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: Edward Martinez — Operator (print) — Signature — 123991 — Z # — 11-15-13 — Date

7.1[4] Reviewed By: Jose Jerez — Supervisor or designee (print) — Signature — R214521 — Z # — 11/15/13 — Date

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Date: 11/13/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68669

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 SPVC
Serial No.: L-11498
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% on +/-6% ccw	+/-3% on +/-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] / [illegible] / 11-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-862
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

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

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

5.[34][E] Drum ID No.: BC 11/19 ~~68669~~ 68669

Comments: n/c

5.[35] Performed By: Federico Arboleda / [signature] 1228869 11-13-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / [signature] 1221421 11/15/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
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WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68669

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

M&TE No.: 036245
Cal. Expiration Date: 08/05/2014
Range: 16-80 ft-lb
Tolerance (+/-): +/-3% CW and +/-6% CCW

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

Performed By: Edward Martinez (Operator (print)) [signature] (Signature) 1239111 (Z #) 11-15-13 (Date)

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

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

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

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

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

ATTACHMENT 2
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6.[3] Drum ID No.: 68669

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: Edward Martinez (Operator (print)) [signature] (Signature) 123744 (Z #) 11-15-13 (Date)

7.1[4] Reviewed By: Josi Jerez (Supervisor or designee (print)) [signature] (Signature) 182142 (Z #) 11/15/13 (Date)

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Date: 11/13/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68665

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.: 6 CPVC 1.5-2 SPVC
Serial No.: L-11513
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: [signature] [signature] 12 28 24 11-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-852
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
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5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

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

5.[34][E] Drum ID No.: 68665

Comments: N/C

5.[35] Performed By: Frederico Arbeldes / [signature] / 228826 / 11-12-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / [signature] / 221452 / 11/12/13
Supervisor or designee (print) Signature Z # Date

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WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68665

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

M&TE No.: 036245
Cal. Expiration Date: 08/05/2014
Range: 16-80 ft-lb
Tolerance (+/-): +/-3% CW and +/-6% CCW

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

Performed By: Edward Martinez (Operator (print)) (Signature) 1239941 (Z #) 11-15-13 (Date)

6.[12] Drum closure ring torque value: 66 ft-lb

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

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

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
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: N/A (Operator (print)) (Signature) (Z #) (Date)

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

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

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6.[3] Drum ID No.: 688665

6.[26] Scale File ID number: 10-14-14

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

6.[28] Drum gross weight: 371.8 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: Clayton Mullins / [signature] 248092 / 11/15/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / [signature] R2145C / 11/15/13
Supervisor or designee (print) Signature Z # Date

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Date: 11/14/13 HS

ATTACHMENT 3
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WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S853492

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): 498.6

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: Edward Martinez / [signature] / 239941 / 11-14-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / [signature] / 221452 / 11/15/13
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: Randy Axtell / [signature] / 109185 / 11/18/13 / 1855
SOS/SOM or designee (print) Signature Z # Date Time

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

1934 SP72

Production Control

Container ID: S853492 | Container Type: 85-GAL 85-11-4-1395 | Gross Weight (lbs): 520

Liner Seal #: 020611 | Filter Prefix: LAVC | Filter Serial #: 04054

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

TWSR Comments: LEACHED SOLIDS NITRATE SALTS MST 12 A0157

Total PE-Ci Activity: 9.02E+00 | Equivalent Combustible PE-Ci: 3.38E+00 | AM-241 PE-Ci: 7.32E-01

Total Fissile Gram Equivalents: 99.6 | Total Surface Dose Rate (mrem/hr): 7

EPA Code(s): D007; D008; D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/13/2007 | Comment: Impenetrable Obj, Liner Not Punctured

Certified RTR Comment: None

Prohibited Items:	■ Sealed > 4 Liters	■ Liquid	■ Pressurized Container	☑ Impenetrable Item	■ Other
Security Determination:				☑ Green	☐ Yellow
Remediation Determination:		☐ VE	☑ 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)) | John S 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: No trate Salts
Net Wt: 460# Generator info shows 8 items of nitrate salts, weights range from 6.7 to 14.4# 6/13 No RTR BDR. Nitrate salts are typically packaged in plastic bags, undocumented, liquids &/or debris may also be present. RTR PS shows impenetrable object(s) and unpunctured liner. No chemicals identified, applicable waste codes are for chromium lead + mercury. Nitrate salts require repack with admixture.

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Valerie Rhodes (Signature) | 112609 (Z Number) | 4/18/13 (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 hexarmour gloves during processing.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: USE Proper PPE Min. retro

Performed By: Gmt (TRU Remediation Operations (Print)) | A M S (Signature) | 149275 (Z Number) | 6/19/13 (Date)

Dave Jones Jan Jay 221452 6/22/13

1145 Review. Galley And Lamp CST, may contain Pb, Hg + Cr
No other concerns
J Ramsey 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 020611

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	5LR8-20NE1		17.310	NITRATE SALTS		13.97	52	1/13	G468	
2	5LR8-20NW1		19.480	NITRATE SALTS		4.99	52	1/13	G468	
3	5LR8-20NE2		15.510	NITRATE SALTS		9.55	52	1/13	G468	
4	5OX6-21NW1		11.520	NITRATE SALTS		12.12	52	1/13	G468	
5	5OX6-21NE1		6.700	NITRATE SALTS		15.87	52	1/13	G468	
6	5DS4-22NE1		10.810	NITRATE SALTS		3.63	52	1/13	G468	
7	6DS1-1NW1		14.300	NITRATE SALTS		19.17	52	1/13	G468	
8	6OX1-3NW1		12.930	NITRATE SALTS		4.42	52	1/13	G468	
9	6OX1-3NE1		10.440	NITRATE SALTS		[redacted]	52	1/13	G468	
10	6LR1-2NW1		19.720	NITRATE SALTS		5.38	52	1/13	G468	
11	6LR2-4NW1		7.640	NITRATE SALTS		2.67	52	1/13	G468	
12	6LR2-4NE1		16.440	NITRATE SALTS		11.27	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 235.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	108.42	162.80
Totals	108.42	162.80

ATTACHMENT 1
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TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

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

Container No. (5.[1])	585349Z					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	FF					
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])	206.76 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: Sara Aragon / 237975
CCP (Print) Z#

Reviewed By: Nathan Wales / 235866
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 S. Ramsey / 100681 / 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 : S853492.D
Acq On : 21 May 2013 2:57 pm (#1); 21-May-13, 14:56:19 (#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 15:06:00 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.604	96	4189205	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.926	117	3638942	177.00	ppmv	0.03
Target Compounds						Qvalue
1) Hydrogen	1.602	GC1	1466m	206.26	ppmv	

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

vocgas.m Tue May 21 15:06:08 2013

11-14-13 CONTINUED FROM PREVIOUS PAGE H SMITH

1721 LATE ENTRY: ITEM #63 ON INSIDE ROUNDS. OOS PERMISSION GRANTED TO PROCEED. POD IN PLACE, PER CSE DOCUMENTATION 1507 HS

1730 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SOS

1745 LATE ENTRY: RCT's SUPERVISION INFORMS OOS CENTER ALL SMEAR COUNTS ON RESPIRATORS AND FLOOR ARE NOA 1637 HS

1803 PER SOM ROTO GRIP REPAIRS IN PROGRESS. ALMOST COMPLETE, CAUTION TAG MAY BE REMOVED IF COMPLETED

11-14-13/810 BEING RELIEVED BY OCO TERRI COLEMAN A SMITH

HS

NO FURTHER ENTRIES ON THIS PAGE A SMITH

11-14-13
1810 Assuming WCRR operations center - Coleman
1820 Shift turnover being conducted with dayshift.
1825 Late entry at 1819, mode changed from warm standby to operate in WCRF yard and 50-69. JC
1826 Pre-job being conducted by SOS. Safety topic - prepping your home for the winter.
1843 Pre-job concluded.
1926 Operators entering 50-69 to begin operations on drum # S845072.
1944 Caution tag # 50-13-0026 removed from the Roto Grip. Caution tag logbook updated.
2111 Bagging off 1 daughter, bagging on another daughter.
2112 Mine Issue - Som states that the mechanics ~~are~~ JC 11-14-13 need to inspect and repair the hydraulic leak on the verticle lifting cylinder of the Roto grip. Path forward - To submit an FSR.
2121 Submitted FSR # 114379 for the hydraulic leak on the Roto grip.
2127 Bag off / on complete.
2129 Submitted FSR # 114380 for the WCG overhead light fixtures needing to be relamped.
2245 Deresting S853492, bagging off, then bagging on S853492.
2323 Bag off / on complete.
2338 Created posting # 059 (WCRR office phone numbers) for the RCT's and operators inside 50-69.
0007 Operators out for lunch.
0020 Beginning outside rounds.
0115 Operators back from lunch.
0116 Late entry - at 0047, outside rounds complete. JC
0143 Bagging off 1 daughter, bagging on another daughter.
0155 Bag off / on complete.
0246 Bagging off second daughter, bagging on another daughter.
0300 Bag off / complete.
0424 Initiating a drum movement from 50-69 to a transportainer.
0426 Bagging off final daughter of the day and covering ports.
0447 Bag off complete.
0515 Beginning inside rounds.
0520 RCRA inspections being performed.

Continued on next page - Coleman

PROJECT NAME

11-14-13

0607 Assuming WCRRF SOS position - Cleland.

0615 Pre job being conducted, discussed why respirators have to stay on till cam levels are checked, PPE inside 50-69 and cam levels, also discussed TSE's administrative controls surveillances and prior to's.

0645 Pre job concluded.

0724 Mode change performed TA50-69 and WCRRF yard now in warm standby for electricians to trouble shoot lights on glovebox.

0935 Minor issue resolved with lights on WCG, electrician notified that light switch was switched off that was reason for light outage. Electricians will still change out bulbs since they are here.

1000 Mode change performed TA50-69 and WCRRF yard now in operations.

1004 Operators entering 50-69 to continue processing.

1217 Operators bagging off, deresting and bagging on S845072

1318 Bag on, Bag off complete.

1344 notified by RCT while operators were performing parent bag off 1000 dpm of contamination was found near bolt on the bag. contamination was contained while performing respirators smears 2 respirators reading high on smears, Tech 40 and 1H, PCM alarm tech #36 with contamination on left boot. RCT's red lighting room, maintenance here to work on vent a left will not be able to enter building. RCT ~~[illegible]~~ will perform room surveys and precautionary nasal smears.

1400 RCT notified that Tech 40 respirator reading at 32 dpm and 48 alpha, 1H reading at 5.4 dpm and 18.4 beta, PCM Tech #36 has cleared PCM and whole body frisk with no contamination, 2000 dpm was found on slide and will need to be discarded. RCTs will perform 200 smears inside room 102.

1475 RCTs have notified that drill used for bagging off will need to be discarded reading at 2120 dpm.

1430 late entry. SOM, SOS, CSOM have been notified and we are still within RWP's. 1346 - Cleland

1433 late entry mode change performed TA50-69 and WCRR yard in warm standby for ~~[illegible]~~ Rotoship W11-14-13 repair 1325 C

1514 ~~Nasals from HPAL~~ W11-14-13 Results on nasals from HPAL are HDA. RCTs notified opa center that a small area on the floor is at 152 dpm alpha.

1535 outside rounds completed.

1649 Per RCT's all smears are HDA, maintenance entering - continued on next page - Cleland

SIGNATURE DATE

READ AND UNDERSTOOD DATE

PROJECT NAME NOTEBOOK NO.

continued from previous page - CRolando

1649 TA50-69 to work on roto grip. minor issue

1730 Rounds signed off.

1803 Personal maintenance on rotogrip is complete with [illegible] to have caution tag removed.

11-14 13 1809 Being relieved by SDS Clayton Mullins - CRolando

no further entries this page

SIGNATURE DATE

DATE

20 PROJECT NAME WCRRF SOS Log Book

11/14/13

1810 Assuming SOS position. CA

1820 Starting Pre-Job with turnover from day shift. Discussed over head hazards

1822 Late entry @ 1819 WCRRF yard and 50-69 are now in Operations

1845 Pre-Job complete.

11/14/13 2000 Turning over SOS to Jose Jerez. CA

2000 Assuming SOS position for the evening. [signature]

2111 Bagging off one daughter, bagging on second daughter

2127 Bag off Bag on Complete.

2246 Starting to D-Nest one Parent then Bagging off and Bagging on Parent.

2332 D-Nesting, bag on bag off complete.

0015 ~~0015~~ Operators breaking for lunch

0115 ~~0015~~ Operators returning from lunch.

0141 Bagging off one daughter, bagging on second daughter and continuing to process.

0154 Bag on Bag off complete.

0217 Reviewed and signed outside rounds.

0246 Bagging off second daughter, bagging on third daughter.

0300 Bag off Bag on Complete

0424 Starting Drum Movement from 50-69 to Transportainer 75 total of 11 Drums.

0426 Starting Bag off of final daughter for the shift

0447 Bag off complete

0528 Movement Complete All waste out of 50-69

0530 Mode Change Complete 50-69 is in Cold WCRR yard is in WARM.

0540 Operators wiping down glovebox and doing house keeping inside of 50-69

11/15/13 0600 Securing SOS position for the evening turning over to Chrissa Velarde [signature]

RM9

No further entries on this page

READ AND UNDERSTOOD

11-14-13 DAYSHIFT

0610 Reviewed the shift turnover checklist and assumed the som position from Guadagnoli

0640 Completed attending the pre-job brief conducted by (Clarissa) the SOS. The safety topic was ladder safety and fall clean up. There is one transfer scheduled out and one scheduled in from AREA-G. WCG light burned out above/on top of the WCG. Notification was made to the OM requesting electrical support. The RCT provided updates from attending the monthly glove box safety meeting. The current shift orders were briefed. Manual drum movements and Precautions to prevent bag tears.

0715 Complete the daily plan of the day phone call with AREA G.

0724 Mode Change: 50/69 and YARD transition from Operations/Operations to Warm/warm

0800 PAT arrives to inspect drums and initiate transfer out to AREA-G

0845 The transfer out is completed and personnel were observed wearing proper PPE. A total of 10 drums were transfered.

0850 Crafts arrive at WCRRF to replace the WCG light bulb/Relamp. WO# 479036-01 - 50-69 Relamp light above GB was reviewed and approved to conduct work. Crafts are briefed on RWP.

0955 Crafts exit the facility - relamp WCG and evaluate Roto Grip. Crafts recommend caution tag the roto grip until the package is ready to work - based upon static or spark. Notification was made to the SOM.

1000 Mode Change: 50-69 and yard transition from WARM/WARM to Operations/Operations

1040 OCO/SOM initiate caution tag 50-13-0026 was placed on the Roto Grip

1218 Inside operators initiate bag off of 1 daughter, and bag on of Parent drum SB45072.

1235 Completed the daily Noon Facility status report with PM/OM/SOM and Others.

1305 Crafts arrive to work on Roto Grip. RWP brief initiated by RCTs

1307 Reviewed WO# 00479050-01 - Verify no stray voltage -

1318 Inside Operations complete the bag off and bag on of Parent SB45072

1325 Mode Change: 50/69 and Yard transition from Operations/Operations to WARM/WARM

1326 Crafts enter facility to work on the Roto Grip while Operators exit for lunch.

1843 Notification was made by RP-1 that an operator on ES-14 were identified with contamination on the respirators - nasal smears will be taken as precautionary - One technician was exiting the PCM-2 when it alarmed noting contamination on the boot. RP-1 initiated smears on the room to contain. RP-1 will report levels when he obtains them.

(Continued on Next Page)

11-14-13 Dayshift Continued.

1403 RP-1 currently reports 2000 dpm on the slide - it will be bagged and disposed of. One operators respirator had contamination of 32 dpm alph removable, and 48 beta. The other respirator had 5.4 dpm alpha and 18.4 beta removable - The left boot of the operator (different operator) from respirator contamination, was noted with 872 alpha upon exiting PCM2 - Ø Beta. The operator did pass the Hand foot monitor prior to Doffing. 11-14-13 [illegible]

1410 Additional information from RP-1 indicates the left boot was checked by RCT, and there was no detection of contamination. The PCM was checked, and additional survey's were taken of the boot - all were noted non detectable. A whole body frisk was conducted and he passed going thru PCM - 2 times

1425 RP-1 reports additional survey results of area and tool indicates the drill used to tighten the bands contained 21.4 alpha removable and 20 beta. The drill will be replaced with a new one Also, since the fork truck was in the area, a full survey will be conducted.

1513 RP-1 reports one spot on the floor was noted at 152 alpha and Ø Beta - the RCT will wipe and re survey. This was noted with smear #96 out of 200. Also he reports that all nasals were NDA.

1620 RCT/RP-1 report the floor being NDA after wiping down and currently all other surveys are NDA for the floor. Also they are counting the last 20 surveys on the fork truck. Currently prior smears on the fork truck are NDA. Additional results forthcoming. Notification was made to crafts to return to WCRRF

1637 RP-1 reports all final surveys are NDA. All noted within RWP limits - No RPO.

1643 Craft arrive and operations ensure the same escorts are assigned Operations will back out the fork truck to allow Room to manipulate the Roto Grip with craft

1806 Operators and crafts indicate they could not find any wiring problems They indicated the battery system is just like a car - you could touch both terminals by hand - nothing will happen. But if you touch terminals with a wrench - sparks would occur - they indicated there was a small drip noticed on the vertical large ram, and eventually it should be changed out - no issues currently and requested FSR submittal -

1810 Night shift SOS indicated they would remove the caution tag. SOM turnover initiated.

1819 Mode change: 50/69 and YARD transition from WARM/WARM to Operations/Operations

1820 Relieved by R. Axtell [illegible]

No further entries this Page

[illegible]

11/14/13 Night Shift

1820 Reviewed Shift turnover checklist, night shift operations watchbill is approved and posted. Assumed WCRR SOM position.

1847 Prejob brief conducted by SOS ended. IH safety topic was overhead hazards - notably being forklift forks during denesting operations. Watchbill is at minimum staffing w/ 3 operators calling in sick. Explained status of Roto-Grip and maintenance efforts conducted today. They did identify a drop of hydraulic fluid on the raise/lower ram but it is OK to operate - operators will make comment on inspection form. Discussed the WCG light switch issue and operators were not aware that switches controlled the WCG lights.

2100 Exited 5069 after conducting MOV of processing operations, housekeeping of WCG. Items to note were good communication used between stations on WCG and w/ RCT's, operator @ station 1 noted to use good ALARA principles while backing out of gloves when other stations were catching up in processing waste. One operator was prompted to install/wear Hexarmor glove gauntlet (glove was in use) of the 2 piece gloves. Obtaining one piece gloves will remedy. WCG cleanliness can be improved between shift turnovers & Noted items to have OCO submit FSR's for are ① 2 middle WCG light fixtures do have some burned out bulbs - need relamp ② Roto Grip vertical raise/lower RAM has small leak.

2127 Completed bag off of 1 daughter - continuing to process

2323 Operators completed all bag offs for parent # S845072 - 2 daughters total Denested and bagged on drum # S853492. OCO had already sent out todays production report so totals will show on tomorrows report.

11/15/13 0007 Operators breaking for lunch

0115 Resuming operations.

0155 Completed bagging off 1 daughter - continuing to process.

0300 Completed bag off of a second daughter - continuing to process.

0330 Completed monthly review of Temporary Modifications binder

0415 Completed monthly review of Operator Aids binder.

continued on next page →

11/14/13 Night Shift continued

11/13/13 0447 Completed all bag offs for parent #5853492-3 daughters total Port cover placed over drum port.

0528 Movements of all inventory out of 50-69 to transportainers (11 drum total) have been completed.

0530 Mode Change completed: WCRR yard / Bldg 50-69 from Operations / Operations to Warm / Cold.

0542 Reviewed and signed off RCRA rounds for weekly SOM review

0549 Completed review of inside and outside round sheets.

0553 Reviewed compliance tracking worksheet and status board is updated.

11/13/13 0605 Relieved by J. Gandegnol as SOM.

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-RTR2-13-0131
Examination Date:	11/21/2013
Waste Container ID:	68665
Video/Audio Recorded Media Number:	LA-RTR2-13-0131 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 169.0 kg Tare Wt.: 33.4 kg Net Wt.: 135.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68665

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):	13.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	115.6
Soils (S):	
Total WMP Weight:	135.6

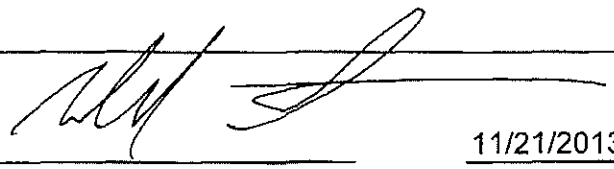
CCP Radiography Data Sheet

Waste Container ID: 68665

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		11/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68665		Count Sequence Number:	23927	
Operator:	D3PW2DK1\operator				
Assay Start:	12/4/2013 11:59:11 AM				
Description 1:	1LANDA1872				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	136.0	kg	Net:	136.0 kg
Container:	Volume:	208.0	l	Full:	85.0 %
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:	23927	Batch Number:	1LANDA1872
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:	68665	Analysis Date:	12/4/2013

Net Weight	136000.0 g		
Pu mass	5.00E+001	+- 1.65E+001	g
TRU Alpha Activity	9.87E+000	+- 4.42E+000	Ci
TRU Activity Concentration	7.26E+004	+- 3.25E+004	nCi/g
Pu-239 Equivalent Activity	9.98E+000	+- 4.42E+000	Ci
Pu-239 FGE	4.72E+001	+- 1.65E+001	g
Decay heat	3.21E-001	+- 1.46E-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	9.19E-007
U233	<LLD	<LLD	0.00E+000	7.98E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.20E-006
NP237	1.25E-001	8.78E-005	1.72E-005	3.53E-006
PU238	4.57E-003	7.82E-002	2.92E-002	1.02E-003
U238	<LLD	<LLD	0.00E+000	2.38E-005
PU239	4.70E+001	2.91E+000	1.02E+000	3.81E-002
PU240	3.00E+000	6.82E-001	2.58E-001	8.91E-003
AM241	1.81E+000	6.20E+000	4.29E+000	1.55E-001
PU241	5.72E-002	5.89E+000	2.23E+000	7.70E-002
PU242	1.00E-002	3.96E-005	1.50E-005	0.00E+000
AM243	2.41E-003	4.83E-004	9.56E-005	1.07E-005

Errors quoted at 1.000 sigma

Operator: Ann Barton Date: 12/10/13

ITR: Date: 12/10/13

Automated Independent Technical Review

Count Sequence Number: 23927 Batch Number: 1LANDA1872
Counter ID: MCS HENC #1
Container ID: 68665
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/4/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	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. AK isotopics applied. The AK information
Results are marked as invalid.	utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.

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

Expert Review by: Sheri Chambers Date: 12-5-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68665**

BDR Number: **LA14FG2052**

Sampling Date: **4/4/2014**

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\140404c\
Data File : 68665.D
Acq On : 4 Apr 2014 2:11 pm (#1); 04-Apr-14, 14:10:29 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 04 14:19:04 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.571	96	3572285	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.874	117	2851973	177.50	ppmv	0.01
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0131
Examination Date:	11/21/2013
Waste Container ID:	68667
Video/Audio Recorded Media Number:	LA-RTR2-13-0131 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.: 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:	55 %

CCP Radiography Data Sheet

Waste Container ID: 68667

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):	63.6
Soils (S):	
Total WMP Weight:	71.6

CCP Radiography Data Sheet

Waste Container ID: 68667

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		11/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68667	Count Sequence Number:	23897		
Operator:	D3PW2DK1\operator				
Assay Start:	11/26/2013 2:48:38 PM				
Description 1:	1LANDA1870				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
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:	55.0 %
Density:		0.630 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23897	Batch Number:	1LANDA1870
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:	68667	Analysis Date:	11/26/2013

Net Weight	71600.0 g	
Pu mass	3.87E+000 +-	7.67E-001 g
TRU Alpha Activity	3.27E+000 +-	1.61E+000 Ci
TRU Activity Concentration	4.57E+004 +-	2.25E+004 nCi/g
Pu-239 Equivalent Activity	3.28E+000 +-	1.61E+000 Ci
Pu-239 FGE	3.66E+000 +-	7.65E-001 g
Decay heat	1.08E-001 +-	5.36E-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	5.51E-007
U233	<LLD	<LLD	0.00E+000	4.91E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.74E-006
NP237	5.73E-002	4.04E-005	7.05E-006	2.19E-006
PU238	3.53E-004	6.04E-003	1.49E-003	5.61E-004
U238	<LLD	<LLD	0.00E+000	9.08E-006
PU239	3.63E+000	2.25E-001	4.74E-002	2.09E-002
PU240	2.32E-001	5.27E-002	1.34E-002	4.89E-003
AM241	8.71E-001	2.99E+000	1.61E+000	5.88E-002
PU241	4.43E-003	4.56E-001	1.16E-001	4.23E-002
PU242	7.74E-004	3.06E-006	7.76E-007	0.00E+000
AM243	1.67E-003	3.33E-004	5.87E-005	6.73E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11.27.13

ITR: _____ Date: 11-27-13

Automated Independent Technical Review

Count Sequence Number: 23897 Batch Number: 1LANDA1870
Counter ID: MCS HENC #1
Container ID: 68667
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/26/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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 Chamberlain Date: 11-27-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68667**

BDR Number: **LA13FG2122**

Sampling Date: **12/2/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	137.12	
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\131202c\
Data File : 68667.D
Acq On : 2 Dec 2013 11:27 am (#1); 02-Dec-13, 11:26:51 (#2)
Operator : EL 12-3-13 EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 11:35:48 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.539	96	3932934	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.848	117	3082869	177.50	ppmv	-0.01
Target Compounds						Qvalue
1) Hydrogen	1.611	GC1	1031m	137.12	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0131
Examination Date:	11/21/2013
Waste Container ID:	68669
Video/Audio Recorded Media Number:	LA-RTR2-13-0131 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:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68669

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):	4.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	118.1
Soils (S):	
Total WMP Weight:	128.6

CCP Radiography Data Sheet

Waste Container ID: 68669

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		11/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68669	Count Sequence Number:	23898
Operator:	D3PW2DK1\operator		
Assay Start:	11/26/2013 3:31:11 PM		
Description 1:	1LANDA1870		
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:	85.0 %
Density:	0.730 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23898	Batch Number:	1LANDA1870
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:	68669	Analysis Date:	11/26/2013

Net Weight	129000.0 g	
Pu mass	7.53E+001 +-	2.52E+001 g
TRU Alpha Activity	1.26E+001 +-	5.16E+000 Ci
TRU Activity Concentration	9.79E+004 +-	4.00E+004 nCi/g
Pu-239 Equivalent Activity	1.28E+001 +-	5.16E+000 Ci
Pu-239 FGE	7.10E+001 +-	2.51E+001 g
Decay heat	4.09E-001 +-	1.71E-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	1.05E-006
U233	<LLD	<LLD	0.00E+000	1.09E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.31E-006
NP237	1.31E-001	9.24E-005	1.76E-005	4.82E-006
PU238	6.87E-003	1.18E-001	4.45E-002	1.27E-003
U238	<LLD	<LLD	0.00E+000	2.30E-005
PU239	7.06E+001	4.38E+000	1.56E+000	4.72E-002
PU240	4.52E+000	1.03E+000	3.93E-001	1.10E-002
AM241	2.07E+000	7.11E+000	4.91E+000	2.33E-001
PU241	8.61E-002	8.87E+000	3.40E+000	9.56E-002
PU242	1.51E-002	5.95E-005	2.28E-005	0.00E+000
AM243	3.63E-003	7.26E-004	1.39E-004	1.52E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-27-13

ITR: _____ Date: 11-27-13

Automated Independent Technical Review

Count Sequence Number: 23898 Batch Number: 1LANDA1870
Counter ID: MCS HENC #1
Container ID: 68669
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/26/2013

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.	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: 11-27-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68669**

BDR Number: **LA13FG2122**

Sampling Date: **12/2/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	345.52	
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)

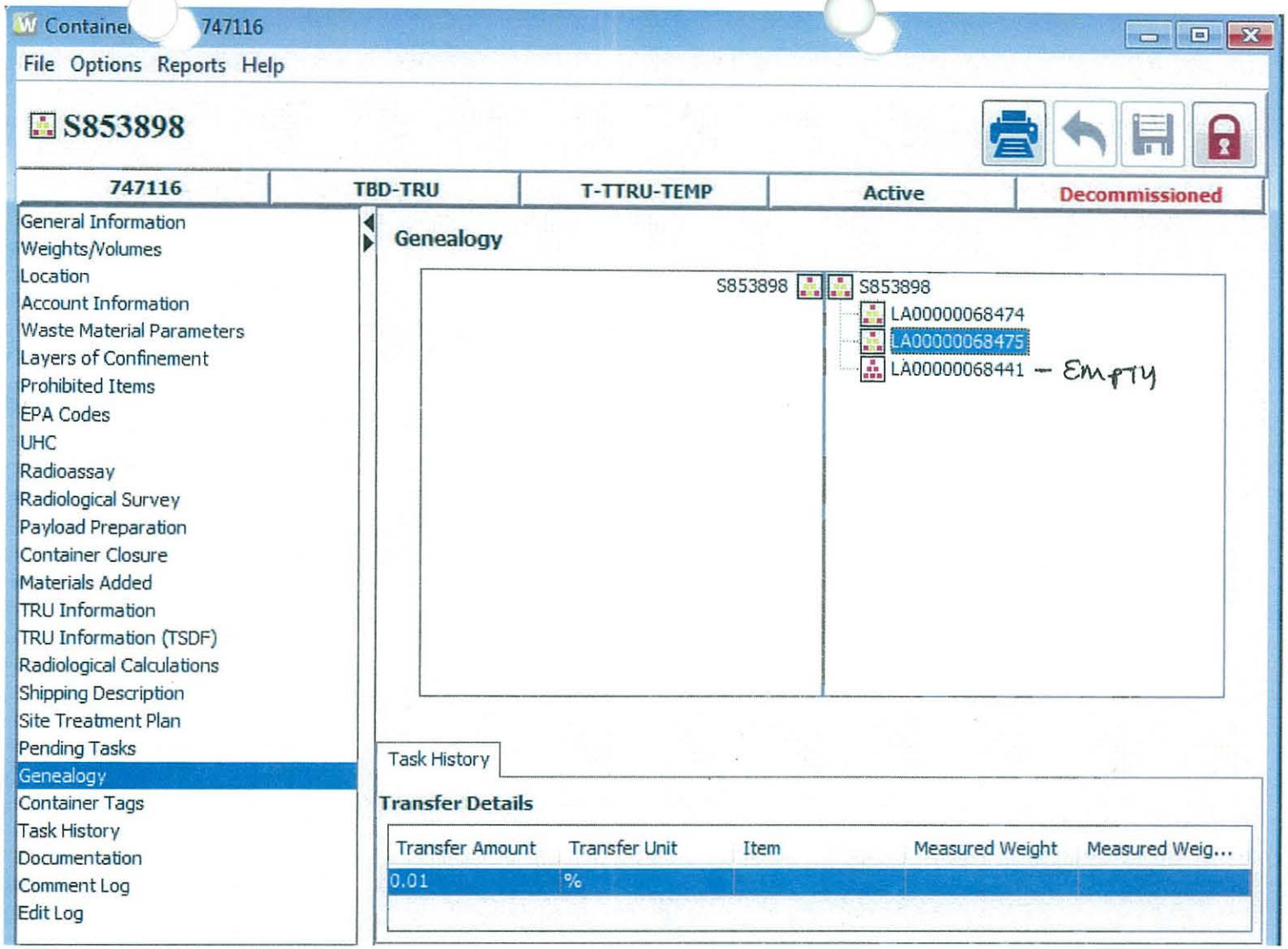
Data Path : C:\msdchem\1\DATA\131202c\
Data File : 68669.D
Acq On : 2 Dec 2013 11:49 am (#1); 02-Dec-13, 11:49:13 (#2)
Operator : EL 12-3-13EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 11:58:04 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.555	96	3940676	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.858	117	3099771	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.615	GC1	2598m	345.52	ppmv	

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

S853898


Container 747116
File Options Reports Help
S853898
747116
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
S853898
S853898
LA00000068474
LA00000068475
LA00000068441 – Empty
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
0.01
%

Working Copy
Date: 9-30-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5863898

6.2[4] Date Processed: 9-30-13

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

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

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

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

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

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

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

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

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

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

Performed By: Justin Lopez [signature] 1266961 10-1-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: S853898	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	438.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	62.4 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	500.6 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.: 5853898

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68475	68474		
10.1[4]	Daughter Drum Filter No.	LM-293	LM-298	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10307	L-10316		
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				
	Model No.				
	Serial No.	N			
	Date of Manufacture		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)				A
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	3 gallons	1 Gallon		
10.3[7][A]	Opaque/Non-penetrable Item Description:	Degraded lead shielding	Degraded 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	glovebox gloves plastics	plastics		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S853898

Comments: Leached Solids, Nitrate Salts, Lead Shielding, poly liner top, PH of 6 on liquid absorbed w/ kitty litter, glovebox gloves, room trash

11.1[1] Performed By: Justin Lopez / [signature] / 1266436 / 0-1-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / [signature] / 240092 / 10/1/13 0355
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

9-18130

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 +/- CCW	+/- 3% CW +/- 6% CCW

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	JL901
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 Capoc / [signature] 126687 10-1-13
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: IAN MARQUEZ / [signature] 126708 9-18-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 240091 10/1/13
Supervisor or designee (print) Signature Z # Date

UET Ring Copy
Date: 9-30-13a

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68441

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 Lopez / [signature] 1266[illegible] 10-1-13
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): 163.4 lb

Comments: N/C

8.1[1] Performed By: Justin Lopez / [signature] 1266[illegible] 10-1-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [signature] 1240090 10/1/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-26-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68474

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-10316
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: Frederick Arbelek / [signature] / 2228026 / 9-26-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-298
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.: 68474

Comments: N/C

5.[35] Performed By: Frederico Achalcta / [signature] 1228826 9-26-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 1240096 10/1/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 10-1-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68474

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

M&TE No.: 057418
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 Lopez / [signature] 1266436 10-1-13
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:		
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] 1266436 10-1-13
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

9-24-14

6.[3] Drum ID No.: ~~6817~~ 68474

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 2398 lbs

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

Comments:

6.[32] Performed By: Justin Lopez / [signature] 1266481 10-1-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 240092 10/1/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9 24-13a

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: ~~68478~~ 68475 (30 9-30-13)

5.[3] Drum information:
- Purchase Order No.: 501526
- Lot No.: 0240 999
- Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
- Manufacturer: ROP
- Model No.: 6 CMC 1.5-2 SAC
- Serial No.: L-10307
- 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: Frederick Archuleta / [signature] 122[illegible] 9-26-13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
- Manufacturer: Nucon
- Model No.: 019DS
- Serial No.: LM-295
- 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.: 681175

Comments: N/C

5.[35] Performed By: Frederico Arballo [signature] 1228826 9-26-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: / / /
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Date 9-26-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68975

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

M&TE No.: 05288
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 Lopez / [Signature] 1266981 9-30-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 65 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.:	10016	028369
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

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] 1266981 9-30-13
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

68475 9-24-14

6.[3] Drum ID No.: ~~S853898~~

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 4042 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 Lopez (Operator (print)) / [signature] (Signature) 1266481 (Z #) 9-30-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) / [signature] (Signature) 1240092 (Z #) 10/1/13 (Date)

1940
SP7

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S853898 Container Type: 55-GAL Gross Weight (lbs): 556
Inner Seal #: 021298 Filter Prefix: LAVC Filter Serial #: 02056
RTR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A0593
Total PE-Ci Activity: 6.53E+00 Equivalent Combustible PE-Ci: 2.45E+00 AM-241 PE-Ci: 5.39E-01
Total Fissile Gram Equivalents: 71.4 Total Surface Dose Rate (mrem/hr): 8
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/25/2007 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 / [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: 496#. Generator info shows 15 items of nitrate salts; weights range from 8-47#. No RTR BDR. Nitrate salts typically packaged in plastic bags; undocumented liquids &/or other debris may be present. RTR PS shows prohibited liquids, impenetrable object(s), & an unpunctured liner. No chemicals identified; waste codes are assigned for lead, chromium & 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 hexarmour gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE. Mix Ratio

Performed By: G mk / [signature] / 149235 / 6/19/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez [signature] 221452 6/22/13
IHS Review - Johnny Smallard CSP, may contain Pb, Hg + Cr
No other Concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021298

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	70X3-9NE1		11.080	NITRATE SALTS		21.16	52	1/13	G468	
2	7LR5-10NW1		6.610	NITRATE SALTS		1.91	52	1/13	G468	
3	7LR5-11NE1		3.970	NITRATE SALTS		1.09	52	1/13	G468	
4	7LA4-12NW1		3.970	NITRATE SALTS		0.35	52	1/13	G468	
5	70X4-13NE1		3.970	NITRATE SALTS		1.	52	1/13	G468	
6	70X4-14NE1		20.570	NITRATE SALTS		34.12	52	1/13	G468	
7	7LR6-15NW1		6.990	NITRATE SALTS		1.39	52	1/13	G468	
8	7LR5-15NE1		9.650	NITRATE SALTS		1.48	52	1/13	G468	
9	7LR7-16NW1		6.440	NITRATE SALTS		0.65	53	1/13	G468	
10	7LR7-16NE1		6.800	NITRATE SALTS		0.61	53	1/13	G468	
11	7LR7-16NW2		6.880	NITRATE SALTS		0.55	53	1/13	G468	
12	7RIVR17NE2		21.360	NITRATE SALTS		3.02	52	1/13	G468	
13	7LR8-18NE1		4.650	NITRATE SALTS		1.2	53	1/13	G468	
14	10X5-K1NW1		17.430	NITRATE SALTS		6.5	52	1/13	G468	
15	7LR9-20NE1		4.970	NITRATE SALTS		0.91	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 252.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	72.02	105.60
53	3.92	29.74
Totals	75.94	135.34

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])	S853898					
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])	2146.07 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)) 238864 (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 #) 5/20/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130411c\
Data File : S853898.D
Acq On : 11 Apr 2013 11:57 am (#1); 11-Apr-13, 11:56:45 (#2)
Operator : SA
Sample :
Misc : 55 GALLON LFL THROUGH UNOBSTRUCTED 072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 12:05:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.568	96	5801271	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.904	117	4770519	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.602	GC1	15253m	2146.07	ppmv	

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

vocgas.m Thu Apr 11 12:05:52 2013

9-30-13

1800 Assuming WCRR operations center - JClemans
1810 Energy Solutions Ops manager holding a meeting with both crews.
1830 Meeting concluded
1839 Pre-job being conducted by SOS.
1900 Pre-job concluded.
1919 Operators entering 5069 to resume operations on drum #5841292.
1955 Submitted an FSR# 112418 for the roto grip inside 50-69 A leak was found during inspections. Caution tag #5013-0022 was placed on the roto grip with instructions to not use it.
2033 Bagging off 1 daughter, bagging on S853898.
2110 Bag off/on complete. Operators currently in a pause due to an elevated CAM.
2118 Pause has ended CAM's reading normal.
2119 Mode change complete. We are now in warm stand by to perform glove changes on station (8) L+R gloves.
2130 Beginning glove changes.
2155 Glove changes complete.
2206 Mode change complete. We are now in operations in WCRRF yard and 5069.
2210 Per tech 38, it was the versa lift that was found to be leaking.
2329 Bagging off 1 daughter, bagging on another daughter.
2344 Bag on/off complete.
2351 Operators out for lunch.
1233 Beginning outside rounds.
10-1-13 0100 Outside rounds complete.
0105 Operators back from lunch.
0223 Initiating a driven movement from 5069 to a transportainer
0244 Operators have cleaned the WCG and are now bagging off the last daughter of the day due to Government Shutdown.
0251 Drum movement out of 5069 complete.
Continued on next page - JClemans

~~9-3~~ JC 10-1-13 Continued from previous page. JColeman
10-1-13
0308 Bag off complete.
0310 Beginning inside rounds.
0311 Late entry at 1243, item #19 on the rounds was unsat, operator given permission to proceed, FSR in place. JC
0327 Item #63 is OOS, okay to proceed per CSE documentation.
0328 Inside rounds complete.
0335 Initiating a drum ~~lift~~ JC 10-1-13 movement from 50-69 to a transport owner.
0340 Drum movement complete. All inventory has been removed from 50-69.
0342 Both rounds reviewed by SOS.
0347 Mode change complete. We are now in Warm standby in WCRRF yard and COLD in 50-69.
0600 Relieved by OCO. Clarissa Velarde - JColeman
JJ

No further entries this page.

9/30/13 Night Shift

1815 Reviewed shift turnover checklist and assumed WCRR SOM position R

1824 Approved and posted Night Shift operations watchbill. Attending pre job brief conducted by SOS w/ ES - Ops M in attendance. IH safety topic was again dealing with stress and recognizing those things which are or aren't under our control. Discussed current conditions inside 50-69 w/ drum in process and 2 others available for processing. Talked briefly about deinventory of 50-69 if funding does not become approved by Congress.

1955 Informed by SOS that Roto Grip has a hydraulic fluid leak identified during pre use inspection FSR being submitted and caution tagged "Do Not Use"

2005 Operators identified that both R & L gloves on station #8 will require changing. Will perform after bag offs are complete.

2110 Completed bag offs for parent #5841292 (2 daughters total) - bagged on 5853898 RP-1 reported elevated CAM.

2118 CAM returned to normal.

2119 Completed Mode Change for WCG glove changes - WCRR Yard and 50-69 both in WARM STBY.

2155 Glove changes completed.

2204 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

2210 Notified by OCO that the Versa-Lift vice Roto-Grip was the drum handler which is ~~[illegible]~~ 9/30/13 leaking - Caution tag and Log updated.

2344 Completed bagging off 1 daughter - continuing processing

2351 Operators breaking for lunch.

10/1/13 0105 Resuming operations

0257 Completed move out of 5 drums from 50-69 to transportainers

0308 Completed last bag offs for parent #5853898 (2 daughters t[illegible] Operators reported that WCG is clean and no gloves have been identified requiring changing.

0340 All inventory is removed from 50-69

0347 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / operations to Warm / Cold.

9/30/13 Night Shift Continued.

10/1/13 0350 Late Entry @ 0342 - Both inside and outside rounds were completed and reviewed - reviewed and signed compliance tracking spreadsheet. KRQ

10/1/13 0612 Relieved by J. Gundersen as SOM. K

No further entries this page
KRQ

9/30/13 WCRR SOS Log Book

1814 Assuming SOS position. CA

1817 Starting Pre-Job with turnover from day shift about glove changes, parents ready to ~~process~~ 9-30-13 CM process, and status of drum bagged onto the WCG. E.S. Ops Manager reviewed issues found by DOE. Also went over over 7 new procedures.

1910 Pre-Job complete.

1955 Submitted an ESR for the roto-grip inside 50-69. a leak was found during inspection. #112408. ~~CA~~ 9-30-13 CM Caution tag, # 50 13 0022, placed on roto grip.

2033 Bagging off 1 daughter, bagging on #5853898.

2110 Bag off/on complete, unable to depost due to CAM's being slightly elevated.

2119 Mode change complete, WCRRF, yard and 50 69 are now in Warm Standby. Operators noticed, prior to bag off/on, that station 3 gloves needed to be changed.

2130 Starting glove changes.

2155 Glove changes complete

2206 Mode change complete, WCRRF yard and 50-69 are now in Operations.

2210 Per tech 38, it was the versa lift that was leaking, not the roto-grip.

2329 Bagging off 1 daughter, bagging on a 2nd daughter.

2344 Bag off/on complete.

0050 Briefing to montly processing and quarterly radiation area RWP's.

0110 RWP briefs complete.

0223 Starting movement out of 50-69.

0244 Operators have cleaned the WCG and will be bagging off 2nd daughter to complete processing due to government shut down.

0257 Move out of 50-69 complete.

0308 Bag off complete.

0359 Starting movement out of 50 69.

Continued on Next Page. C Mullins

10/1/13 Continued from Previous Page. C. Mathis
0340 Move out of 5069 complete
0342 Signed off on the rounds
KM 0347 Mode change complete, WCRRF yard in Warm Standby and 5069 in Cold Standby.
0551 ~~Rete~~ cm 10/1/13 Relieved by Gilbert Martinez. CT

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-RTR2-13-0117
Examination Date:	10/22/2013
Waste Container ID:	68474
Video/Audio Recorded Media Number:	LA-RTR2-13-0117 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.: 108.5 kg Tare Wt.: 33.4 kg Net Wt.: 75.1 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:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68474

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):	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):	65.1
Soils (S):	
Total WMP Weight:	75.1

CCP Radiography Data Sheet

Waste Container ID: 68474

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		10/22/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68474		Count Sequence Number:	23734	
Operator:	D3PW2DK1\operator				
Assay Start:	10/28/2013 3:14:45 PM				
Description 1:	1LANDA1854				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	75.1 kg	Net:	75.1 kg	
Container:	Volume:	208.0 l	Full:	50.0 %	
Density:		0.720 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23734	Batch Number:	1LANDA1854
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:	68474	Analysis Date:	10/28/2013

Net Weight	75100.0 g			
Pu mass	6.67E+001	+-	2.66E+001	g
TRU Alpha Activity	8.71E+000	+-	3.12E+000	Ci
TRU Activity Concentration	1.16E+005	+-	4.16E+004	nCi/g
Pu-239 Equivalent Activity	8.85E+000	+-	3.12E+000	Ci
Pu-239 FGE	6.28E+001	+-	2.65E+001	g
Decay heat	2.80E-001	+-	1.02E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.74E-007
U233	<LLD	<LLD	0.00E+000	5.94E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.58E-006
NP237	6.02E-002	4.24E-005	8.00E-006	2.59E-006
PU238	6.10E-003	1.04E-001	4.66E-002	1.23E-003
U238	<LLD	<LLD	0.00E+000	1.57E-005
PU239	6.25E+001	3.88E+000	1.64E+000	4.58E-002
PU240	4.09E+000	9.28E-001	4.15E-001	1.10E-002
AM241	1.11E+000	3.80E+000	2.62E+000	1.12E-001
PU241	7.66E-002	7.89E+000	3.53E+000	9.33E-002
PU242	1.34E-002	5.27E-005	2.36E-005	0.00E+000
AM243	1.68E-003	3.35E-004	6.38E-005	7.80E-006

Errors quoted at 1.000 sigma

Operator: D R. G Date: 10-30-13

ITR: Brittlight Date: 10-31-13

Automated Independent Technical Review

Count Sequence Number: 23734 Batch Number: 1LANDA1854
Counter ID: MCS HENC #1
Container ID: 68474
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/28/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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 Chandler 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: **68474**

BDR Number: **LA13FG2108**

Sampling Date: **10/29/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	141.77	
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\131029c\
Data File : 68474.D
Acq On : 29 Oct 2013 1:58 pm (#1); 29-Oct-13, 13:57:58 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 29 14:06:28 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	3.555	96	5088844	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.861	117	3968141	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.621	GC1	1066m	141.77	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0117
Examination Date:	10/22/2013
Waste Container ID:	68475
Video/Audio Recorded Media Number:	LA-RTR2-13-0117 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 1 layer
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 68475

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	
AM:	
OM:	Scrap lead
OI:	
C:	
R:	Leaded rubber gloves
XPM:	Plastic bag, liner lid
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	2.5
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	134.6
Soils (S):	
Total WMP Weight:	150.1

CCP Radiography Data Sheet

Waste Container ID: 68475

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 (Print Name) / [signature] (Signature) / 10/22/2013 (Date)	

5853898

NDA 2000 Assay Report

Item Information

Item ID:	68475	Count Sequence Number:	16617		
Operator:	DCLTD231\Operator				
Assay Start:	10/23/2013 3:04:07 PM				
Description 1:	2LANDA1233				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	150.0	kg	Net:	150.0 kg
Container:	Volume:	208.0	l	Full:	75.0 %
Density:		0.960	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:	16617	Batch Number:	2LANDA1233
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68475	Analysis Date:	10/23/2013

Net Weight	150000.0 g		
Pu mass	9.68E+001	+- 1.93E+001	g
TRU Alpha Activity	1.23E+001	+- 1.60E+000	Ci
TRU Activity Concentration	8.18E+004	+- 1.07E+004	nCi/g
Pu-239 Equivalent Activity	1.24E+001	+- 1.60E+000	Ci
Pu-239 FGE	9.09E+001	+- 1.81E+001	g
Decay heat	3.93E-001	+- 5.15E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.13E-001	1.50E-004	3.34E-005	3.32E-006
PU238	2.04E-002	3.49E-001	6.98E-002	7.75E-005
PU239	9.06E+001	5.62E+000	1.12E+000	1.25E-003
PU240	6.00E+000	1.36E+000	2.72E-001	3.02E-004
AM241	1.44E+000	4.93E+000	1.11E+000	1.13E-001
PU241	6.75E-002	6.95E+000	1.39E+000	1.54E-003
PU242	9.88E-002	3.90E-004	7.80E-005	0.00E+000
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	4.61E-006
U238	<LLD	<LLD	0.00E+000	2.54E-005
AM243	6.85E-003	1.37E-003	3.06E-004	2.11E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/24/13

ITR: _____ Date: 10-24-13

Automated Independent Technical Review

Count Sequence Number: 16617 Batch Number: 2LANDA1233
Counter ID: HENC #2
Container ID: 68475
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/23/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 10-24-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68475**

BDR Number: **LA13FG12108**

Sampling Date: **10/25/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	454.13	
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	16.21	
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

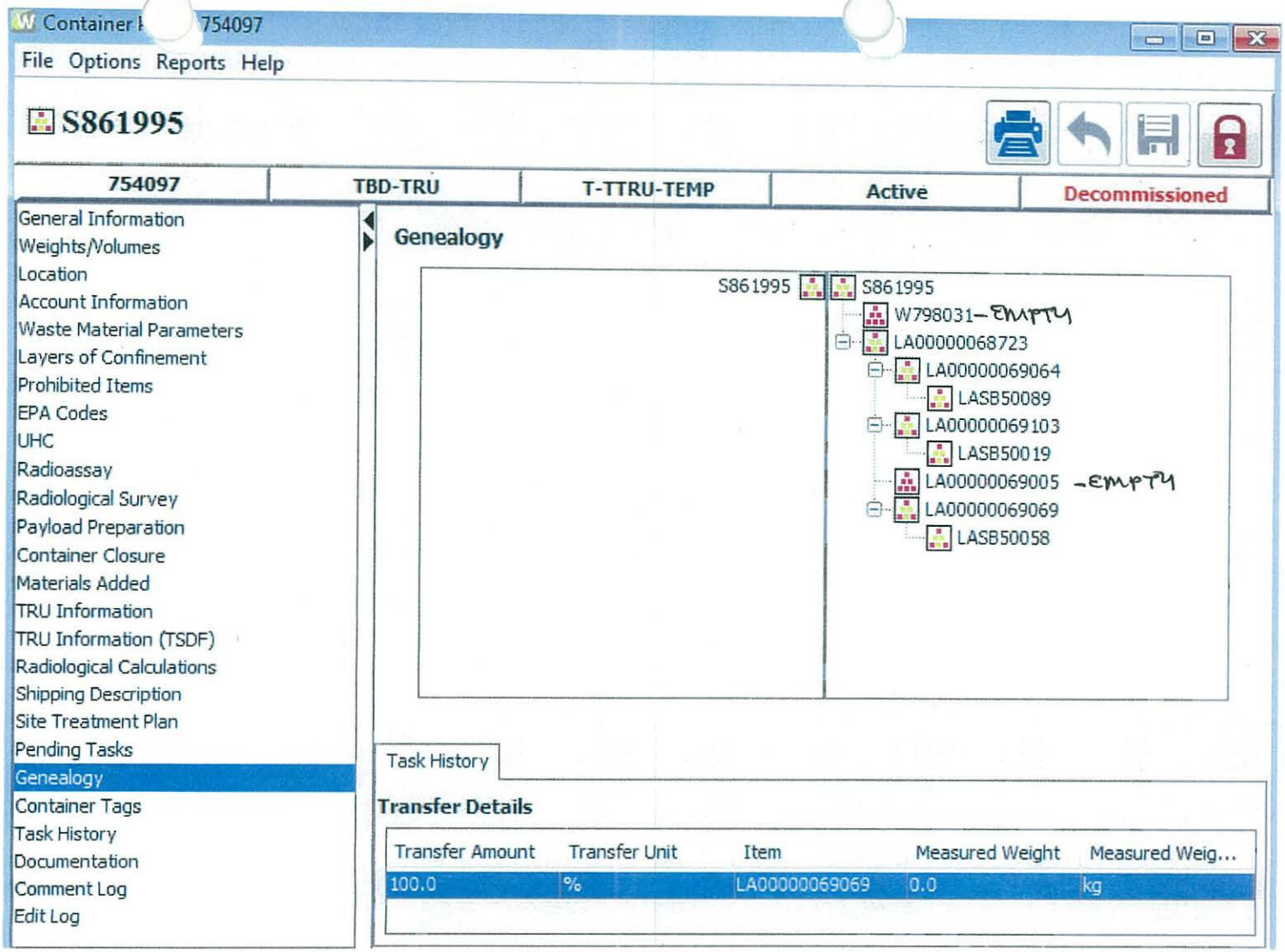
Data Path : C:\msdchem\1\DATA\131025c\
Data File : 68475.D
Acq On : 25 Oct 2013 12:51 pm (#1); 25 Oct 2013 12:50 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 25 12:59:52 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	7844250	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	5748307	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.910	GC1	129541m	454.13	ppmv	
17) Toluene	5.580	92	376390	16.21	ppmv	96

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

S861995


Container I 754097
File Options Reports Help
S861995
754097
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
S861995
S861995
W798031-EMPTY
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LA00000069064
LASB50089
LA00000069103
LASB50019
LA00000069005 -EMPTY
LA00000069069
LASB50058
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
100.0
%
LA00000069069
0.0
kg

Working Copy UET
Date: 12-16-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68723

6.2[4] Date Processed: 12-16-13

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) N/A (Initial and Date)

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

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

Performed By: ADAM SEDOVIA [signature] 1276702 12-16-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 68723	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	409.0 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	83.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	492.0 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.	NA / / 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

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4.1[6][B] Parent Waste Container No.: 68723

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69064	69069		
10.1[4]	Daughter Drum Filter No.	JL-886	JL-858	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10138	L-10365	A	
10.1[4]	Daughter Drum Purchase Order No.	501892	501892		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP			
	Model No.	6CPRC1.5-2SPRC			
	Serial No.	L-10110			
	Date of Manufacture	5-13			
10.2[5]	POC ID No	69103		N	
10.2[7][B]/10.2[6]	POC Item Description	NHRDRS ACTS		A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	271702			
10.2[14]	POC Assembly Gross Weight (lb)	374.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1.5R			
10.3[3][A]	Approx. Containerized Liquid Vol./Units			NA	
10.3[5][A]	Free Liquid Volume/Units	5GALLONS		NA	
10.3[7][A]	Opaque/Non-penetrable Item Description:	degraded lead shielding	Degraded lead shielding	N	A
10.3[9][A]	PCB-contaminated Waste Description		N	A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments	See Comments	N	A
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	80%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter Plastic Stubouts	Kitty litter stubout		

tn 9-24-14

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: ~~69064~~ 68723

Comments: Hex Armour gloves, Kitty Litter, Plastic stubout Bags, lead shielding, 5 gallons of liquid PH of 3 Nutritized with acid neutralizer, nitrate salts, Plastic, one poly liner lids,

11.1[1] Performed By: [signature] / Adam Segovia / 276702 / ~~12-18-13~~ 12-16-13 12-16-18
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / CA / 240092 / 1/23/14 1455
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11/19/13 AV

69005

ATTACHMENT 2
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WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	036245
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-1073
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: James Smith / HASMITH / 116662 / 11-19-13
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: James Smith / [signature] / 116662 / 11-19-13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Clayton Mullis / [signature] / 240092 / 1/23/14
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 12-16-13

ATTACHMENT 5
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WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: G 9005

7.[23] Overpack drum closure ring torque wrench information:
- M&TE No.: 038369
- Cal. Expiration Date: 12-19-13
- Range in ft-lb: 16-80
- Tolerance: +/- 3% cw +/- 6% ccw

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

Performed By: Adam Segovia / [signature] 1276702 / 12-16-13
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): 174.4 lb

Comments: N/C

8.1[1] Performed By: Adam Segovia / [signature] 1276702 / 12-16-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Miller / [signature] 1240924 / 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.: 69064

5.[3] Drum information:
Purchase Order No.: 301892
Lot No.: 0244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-2 SPVC
Serial No.: L-10138
Manufacture Date: 5/13

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: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 12772681 (Z #) 12/13/14 (Date)

5.[23] Filtered vent information:
Manufacturer: Nuc Fil
Model No.: 019 DS
Serial No.: JL-886
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
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5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): ~~69C~~ 76 lbs MS 12/7/13

5.[34][E] Drum ID No.: 69C64

Comments: N/C

5.[35] Performed By: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 1277268 (Z #) 12-13-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) CA (Signature) 240096 (Z #) 1/23/14 (Date)

ATTACHMENT 2
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WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69064

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: Adam Segovia (Operator (print)) [signature] (Signature) 276702 (Z #) 12-16-13 (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.:	100216	036245
Cal. Expiration Date:	12-18-13	8-5-14
Range:	120 in-lb	30 ft-lb
Tolerance (+/-):	+/-4% CW +/-6% CCW	+/-3% CW +/-6% CCW

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

Performed By: Adam Segovia (Operator (print)) [signature] (Signature) 276702 (Z #) 12-16-13 (Date)

6.[17][C] 2 in. bung plug torque value: 30 ft-lb ☐ N/A

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 019065

6.[26] Scale File ID number: 10-14-14

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

6.[28] Drum gross weight: 334.2 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: Adam Segovia (Operator (print)) [signature] (Signature) 2267021 (Z #) 12-16-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) [signature] (Signature) 2400921 (Z #) 1/23/14 (Date)

ATTACHMENT 1
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Working Date: 12/13/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69069

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.: JL 12-13-13 ~~3cpvc-1.5 25pvc~~ 6cpvc-1.5-24
- Serial No.: L-10365
- 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	08-5-13
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 / _____ 126643 12-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
- Manufacturer: Nucfil
- Model No.: 019DS
- Serial No.: JL-858
- 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
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5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

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

5.[34][E] Drum ID No.: JR ~~019045~~ #69069

Comments: N/C

5.[35] Performed By: Joe Romero (Operator (print)) J. Romero (Signature) 1109702 (Z #) 12/13/13 (Date)

7.1[4] Reviewed By: Clayton Mullis (Supervisor or designee (print)) (Signature) 240092 (Z #) 1/2/14 (Date)

ATTACHMENT 2
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WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69069

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: Adam Segovia / [signature] 276702 / 12-16-13
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.:	036245	100216
Cal. Expiration Date:	8-5-14	12-18-13
Range:	16-80 in-lb	30 ft-lb
Tolerance (+/-):	+/-4% CW +/-6% CCW	+/-3% CW +/-6% CCW

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

Performed By: Adam Segovia / [signature] 276702 / 12-16-13
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: 30 ft-lb ☐ N/A

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

ATTACHMENT 2
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6.[3] Drum ID No.: 69069

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 227.4 lbs

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

Comments: N/C

6.[32] Performed By: Adam Segovia (Operator (print)) [signature] (Signature) 236704 (Z #) 12-16-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) [signature] (Signature) 240092 (Z #) 1/23/14 (Date)

ATTACHMENT 3
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Working Copy
Date: 12/15/13 HJ

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68723

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): 409.0

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

Comments: N/C

8.1[1] Performed By: Frederico Arellano / [signature] / 1228826 / 12-15-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [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: [signature] / [signature] / 149235 / 1/24/14 / 0945
SOS/SOM or designee (print) Signature Z # Date Time

WDP TRU Waste Container Management Operations

UET

Document No: EP-DIV-AP-0107 SP 072
Attachment: 1
Revision: 1
Effective Date: 12/22/2009

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container relabeled & given new number. B Dupillo 11/12/13

Container ID: S861995 / ~~68725~~ 68723 (P) 11/12/13 Container Type: 85-GAL Gross Weight (lbs): 424

Inner Seal #: 020322 Filter Prefix: LAVC Filter Serial #: 2293

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

TWSR Comments: LEACHED SOLIDS MST 12 A0758

Total PE-Ci Activity: 8.57E+00 Equivalent Combustible PE-Ci: 3.26E+00 AM-241 PE-Ci: No data

Total Fissile Gram Equivalents: 90.9 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 2/13/2007 Comment: Impenetrable Obj, Liner Not Punctured,

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☑ VE ☑ 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 / R. W. Jones / 117434 / 9.1.10
Production Control (Print) Signature Z Number Date

WDP Engineering SUSAN RAMSEY Susan S. Ramsey 100681 5/21/13

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. Waste record indicates leached solids in form of nitrate salts. Log sheet has 12 items, heaviest is 32 lbs. Net weight is 238 lbs. May require RWP for > 1,000 mrem/hr @ 30-cm.

Performed By: Michael Garcia / Michael Garcia / 099143 / 9/4/10
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: USE Proper PPE And Kitty Litter Ratio

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments:

Performed By: Julie Gallegos / Julie Gallegos / 149235 / 11/13/13 / 176905 / 9.14.10
TRU Remediation Operations (Print) Signature Z Number Date

Daniel L. Blaon / Daniel L. Blaon / 218069 / 11/14/13

IHS Review. Johnny Smallwood 241659, May contain lead Chrominum, Mercury. 7-31-13 Jose Jerez 221452 11/21/13

Noncertified TRU Waste Drum Item Information

DrumID: 020322

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	HT	Auth (Pg/Ln)	Comments
1	12DS31E2		14.360	NITRATE SALTS		14.36	52	9/13	G468
2	12LR30W2		8.480	NITRATE SALTS		1.1	52	9/13	G468
3	12LR30W1		7.790	NITRATE SALTS		1.57	52	9/13	G468
4	12LR30E1		7.360	NITRATE SALTS		3.04	52	9/13	G468
5	12OX27W1		13.760	NITRATE SALTS		31.09	52	9/13	G468
6	10X3W1		11.600	NITRATE SALTS		0.73	52	9/13	G468
7	12OX27W2		7.820	NITRATE SALTS		5.52	52	9/13	G468
8	1LR3W1		9.760	NITRATE SALTS		4.68	52	9/13	G468
9	1LR3E1		8.880	NITRATE SALTS		12.87	52	9/13	G468
10	1DS13E1		12.490	NITRATE SALTS		19.48	53	9/13	G468
11	1DS13W2		2.160	NITRATE SALTS		2.11	53	9/13	G468
12	10X7W1		3.050	NITRATE SALTS		0.51	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.2

Material Type	SNM (grams)	Items Net Wt (kg)
52	75.47	92.86
53	21.59	14.65
Totals	97.06	107.51

ATTACHMENT 3
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TA-54 AREA G DRUM VENTING DATA SHEET

[2] Waste Container Unique Identifier S861995

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

[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-70S) 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.*

[9]

Head Space Gas sample results:	85-gal (☑ N/A)	55-gal (☐ N/A)
Hydrogen	_____ %	0 %
Methane	_____ ppm	0.000 ppm
VOC	_____ ppm	9.77 ppm
Filter Vent Unique Identifier No.	_____	AN-376
Filter Vent Installed		
Stub Stem (e.g., NucFil-70TS)	☐ (☑ N/A)	☐ (☑ N/A)
Short Stem (e.g., NucFil-70S)	☐ (☑ N/A)	☐ (☑ N/A)
Long Stem (e.g., NucFil-70SDS)	☐ (☑ N/A)	☑ (☐ N/A)

CFT

ATTACHMENT 3
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7[2] Waste Container Unique Identifier: S861995

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
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7[2] Waste Container Unique Identifier: 5861995

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

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

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

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

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

7[13][A] (S) 55-gal waste containers to be transferred to WCRRF satisfy the following criteria (WCRRF SAC 5.10.2.3.4.a): ☑ SAT ☐ UNSAT ☑ N/A 11-20-13
- Hydrogen concentration less than or equal to 2.4% (24,000 ppm)
- VOC less than or equal to 5,250 ppm

Comments: N/A

7[13][B] Performed By: Chris Vigil [signature] 163082 2-27-13
EP DOP Specialist Designee (Print) Signature Date

7[13][C] Nonfunctional space heaters ON and thermostat [illegible] ☐ SAT ☑ UNSAT

Reviewed By: Chris Vigil [signature] 163082 2-27-13

DVS Gas Determination Results Report

Date: 2/27/2013

Waste Container Number: S861995

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	9.77	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	0	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	0	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

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

Total Flammable VOCs	9.77	I.V.R. Intial and Date	JAB 2/27/13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	0	%	6.45	%	
Methane	0.000	ppm	15990.00	ppm	

Comments:

AN-376

Doug Eisele — DVS Operator Print Name

Signature

02-27-13 — Date

DVS Gas Determination Results Report

Date: 2/27/2013

Waste Container Number: S861995

Batch Number: DVS2130227

Filter Type Installed: 08DS

Number of Filters Installed: 2 ~~1~~

2.0

Flammable Volatile Organic Compounds (VOCs)

Compound	Concentration (ppmV)	Upper Calibration Range (ppmV)	Exceeds Calibration (Y/N)	Calculated Value (if exceeds calibration)
Methanol	9.77	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	0	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	0	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

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

Total Flammable VOCs	9.77	I.V.R. Intial and Date	JAH 2/27/13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	0	%	6.45	%	
Methane	0.000	ppm	15990.00	ppm	

Comments:

AN-376

DUE TO AN UNCORRECTABLE HIGH INSTALL AND UNDER LTP-DDP GUIDANCE, A 2ND O8DS FILTER WAS INSTALLED AS A "FILTER ONLY".

THE SECOND O8DS FILTER SERIAL NUMBER IS AN-360.

Doug Eisele — DVS Operator/Print Name

Signature

0-27-13 — Date

12-6-13

0550 Assuming WCRR operations center - Coleman
0605 Beginning outside rounds.
0620 Beginning inside rounds.
0621 Pre job brief being conducted by the SOS.
0637 Item # 63 is OOS, Okay to proceed per CSE documentation.
0638 Late entry - at 0634, outside rounds complete. JC
0639 RCT's discussing HFM's alarming over the weekend and path forward.
0642 Inside rounds complete.
0700 Both rounds reviewed by SOS.
0714 The glovebox receptacle has been de-energized.
0737 Mode changed to operations in WCRR for 50-69 and 50-69.
0755 Initiating a drum movement, staging drums for the shipment out to Area G.
0758 Bagging on 68723. PPE check is Sat.
0810 Bag on complete.
0827 Staging complete for drums shipping to Area G. Transportainers secured.
0841 Permission granted to lower the vehicle access gates to load the transfer vehicle for a shipment to Area G. JH
0900 PPE check is Sat.
0925 Vehicle access gates restored. Transfer vehicle loaded.
1017 Permission granted to lower the vehicle access gates to begin receipt of drums from Area G.
1020 Bagging off 1 daughter, bagging on a POC. PPE check is Sat.
1035 Bag on complete.
1130 Bagging off 1 daughter and 1 POC, bagging on 68722
1215 Bag off/on complete.
1228 Operators out for lunch, second crew in to continue processing.
1419 Bagging off 1 daughter, bagging on another daughter.
1430 Receipt of shipment from Area G complete. Transportainers secured. All 9 drums moved into 50-69. Vehicle access gates restored.
1440 Bag off/on complete.
Continued on next page. - Coleman

12-16-13 Continued from previous page. JColeman
1520 Notified by lead RCT that an operator exiting 50-69 alar the PCM2. RCT's responded and found 972 dpm alpha all along his left side of his leg. RCT's hand surveyed his skin and was NDA. RCT's will recheck his pants (which the RCT's removed) in about and hour or so.
minor issue
1637 Beginning outside rounds.
1654 Outside rounds completed.
1705 Initiating a drum movement from 50-69 to a transportainer
1708 Beginning inside rounds.
1724 Drum movement out of 50-69 complete.
1725 Initiating a drum movement from transportainer to 50-69.
1735 Drum movement into 50-69 complete
1741 Bagging off 1 daughter and placing port cover on.
1815 Item #63 is OOS, okay to proceed per CSE documentation. Bag off complete.
1820 Inside rounds complete.
1826 Mode change complete. We are now in Warm standby in 50-69 and UCRRF yard.
12/16/13 1845 END of day. OCO position secured JColeman

no further entries this page

12/16/13 WCRR SOM

0600 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

0645 Prejob brief conducted by SOS was conducted. IH Safety Topic was recent injuries w/in EM&O operations - awareness of surroundings, weather factors, etc. Discussed RCRA storage regulations @ WCRR - liquids, HAZ waste vs. Non-Haz, permitted areas. Challenged operators to improve processes / efficiencies. ES Ops Manager discussed weekly goals for WCRR as far as drums remediated and ways to achieve.

0655 OSPAT (L. Lackas) is dropping 2 drums from incoming shipment 68819 and 68820 - they were not manifested from last Friday.

0705 Completed daily morning call in to TA-54 SOM and gave WCRR scheduled work status. No items to emerge.

0710 Operators conducting WCG cleanup and glove inspections - mode change on hold until completed. Inside/Outside rounds reviewed, TSR Tracking sheet and status board updated

0737 Operators reported glove inspections completed - all are SAT. Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0810 Bag on of drum # 68723 to WCG complete.

0925 Completed loading of transport vehicle for outgoing shipment of 14 drums.

1017 Receipt of incoming shipment taking place - 9 drums total.

1215 Completed all bag offs for parent # 68723 (2 daughters, 1 POC total) - bagged on drum # 68722,

1220 Completed daily call in w/ PM, OM, SOMs and J. Vigil to status activities.

1228 Operators changing areas for processing work.

1330 Notified by Operator J. Coleman that he cannot find his issued keys for WCRR Buildings and transportainers. Search had been conducted with no results. Called the SIT and spoke w/ Chris Roybal @ 5-3505 for notification - Informed OM.

1350 Notified deployed security contact Bill McGonaghy of lost keys.

1430 Completed receipt of drums from Area G - all drums were moved into 50-69.

1440 Completed bag off of 1 daughter - continuing to process.

continued on next page →

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO

12/16/13
0600 Assuming SOS log book. CA
0615 Starting Pre-Job discussed watching footing and all areas as well with a potential for injuries. Also discussed proper turnover between SOS's and crews. Also ensuring procedure compliance at all times.
~~Contact~~ Contact RCT's if alarm HFM, PCM and foot probes, maintenance will be performing work on the HFM inside the processing area. Able to manually control temp inside, not to adjust temp below 63°F and set temp to 72F at end of shift.
0644 Pre-Job complete.
0700 Signed off on the rounds.
0731 Glove inspection complete, all gloves, asked good. Made change complete, WCRRF guard and SO 69 are now in operations
0753 Bagging on 68723
0816 Bag on complete.
12-16-13 0845 Turning over SOS position to Jose Jurez CA
0845 Assuming SOS position for JJ
0900 PPE Check SAT
0925 Vehicle access gates restored, outgoing shipment complete
017 Permission to lower vehicle access gate to begin receipt of Parents from Area G
1020 Bagging off ~~parent~~ / daughter, bagging on a POC
1030 Turning over SOS duties to Clayton Mullins for JJ
1031 Assuming SOS position. CA
1034 Late entry @ 1020 Bagging off 1st daughter, bagging on a POC. CM
1035 Bag off/on complete.
1130 Bagging off a POC and 2nd daughter, bagging on 68722.
1215 Bag off/on complete.
12-16-13 1216 Turning over SOS position to Jose Jurez CA
1216 Assuming SOS position for JJ
1230 First crew out for lunch, second crew headed in to continue processing.
1419 Bagging off one daughter, bagging on second daughter.
1430 Turning over SOS position to Clayton Mullins. for JJ
1431 Assuming SOS position. CA
1440 Bag off/on complete.
1520 Minor issue, notified by RCT's that an operator alarmed the PCM, RCT's hand surveyed him, which was NDA, holding his PPE pants for re-check. Will check old pants at a later time.

Continued on next page. CMullins

SIGNATURE DATE
READ AND UNDERSTOOD

Best Available Copy

Continued from previous page

10/10/13

1705 Starting a movement out of 50-69.
1724 Movement out complete.
1725 Starting a movement into 50-69.
1739 Movement in complete.
1741 Starting bag off of 2nd daughter to complete processing.
1815 Bag off complete.
1827 The PPE pants from the minor issue came back NDA.
1840 Signed off on the rounds.
1845 Securing SOS position CT

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-RTR2-13-0140
Examination Date:	12/23/2013
Waste Container ID:	69064
Video/Audio Recorded Media Number:	LA-RTR2-13-0140 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 151.0 kg Tare Wt.: 33.4 kg Net Wt.: 117.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 69064

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	
AM:	
OM:	Scrap lead
OI:	
C:	
R:	
XPM:	Plastic bags, liner lid, plastic container
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):	9.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	98.6
Soils (S):	
Total WMP Weight:	117.6

CCP Radiography Data Sheet

Waste Container ID: 69064

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	12/23/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69064		Count Sequence Number:	24057	
Operator:	D3PW2DK1\operator				
Assay Start:	1/3/2014 1:56:17 PM				
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:	118.0 kg	Net:	118.0 kg	
Container:	Volume:	208.0 l	Full:	80.0 %	
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

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24057	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:	69064	Analysis Date:	1/3/2014

Net Weight	118000.0 g	
Pu mass	3.49E+001 +-	6.07E+000 g
TRU Alpha Activity	5.95E+000 +-	7.48E-001 Ci
TRU Activity Concentration	5.04E+004 +-	6.34E+003 nCi/g
Pu-239 Equivalent Activity	6.04E+000 +-	7.48E-001 Ci
Pu-239 FGE	3.40E+001 +-	6.07E+000 g
Decay heat	1.93E-001 +-	2.44E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.11E-008	1.54E-006	7.95E-007	0.00E+000
CS137	1.77E-008	1.54E-006	7.95E-007	7.44E-007
U233	<LLD	<LLD	0.00E+000	9.76E-003
U234	2.80E-002	1.74E-004	6.26E-005	0.00E+000
U235	2.00E+000	4.31E-006	1.55E-006	3.98E-006
NP237	9.88E-002	6.96E-005	1.30E-005	3.92E-006
PU238	3.18E-003	5.45E-002	1.27E-002	1.69E-003
U238	<LLD	<LLD	0.00E+000	2.23E-005
PU239	3.25E+001	2.02E+000	3.75E-001	6.25E-002
PU240	2.28E+000	5.18E-001	1.21E-001	1.60E-002
AM241	9.79E-001	3.36E+000	6.36E-001	1.13E-001
PU241	4.77E-002	4.91E+000	1.15E+000	1.52E-001
PU242	1.05E-002	4.14E-005	9.67E-006	0.00E+000
AM243	7.12E-003	1.42E-003	2.69E-004	1.36E-005

Errors quoted at 1.000 sigma

Operator: D=R Date: 1·7·14

ITR: Date: 1·9·14

Automated Independent Technical Review

Count Sequence Number: 24057 Batch Number: 1LANDA1886
Counter ID: MCS HENC #1
Container ID: 69064
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. 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 Chamberlain Date: 1-6-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69064**

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 : 69064.D
Acq On : 10 Jan 2014 1:37 pm (#1); 10-Jan-14, 13:36:28 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 13:45:22 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	3273707	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.871	117	2621164	177.50	ppmv	0.00
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0140
Examination Date:	12/23/2013
Waste Container ID:	69069
Video/Audio Recorded Media Number:	LA-RTR2-13-0140 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.: 103.0 kg Tare Wt.: 33.4 kg Net Wt.: 69.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 69069

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	
R:	Rubber gloves
XPM:	Plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	2.5
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	53.0
Soils (S):	
Total WMP Weight:	69.6

CCP Radiography Data Sheet

Waste Container ID: 69069

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	12/23/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69069		Count Sequence Number:	24058	
Operator:	D3PW2DK1\operator				
Assay Start:	1/3/2014 2:48:24 PM				
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:	69.6 kg	Net:	69.6 kg	
Container:	Volume:	208.0 l	Full:	50.0 %	
Density:		0.670 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24058	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:	69069	Analysis Date:	1/3/2014

Net Weight	69600.0 g	
Pu mass	2.04E+001 +-	7.40E+000 g
TRU Alpha Activity	2.95E+000 +-	1.10E+000 Ci
TRU Activity Concentration	4.25E+004 +-	1.58E+004 nCi/g
Pu-239 Equivalent Activity	3.01E+000 +-	1.10E+000 Ci
Pu-239 FGE	1.91E+001 +-	7.38E+000 g
Decay heat	9.52E-002 +-	3.61E-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	4.07E-007
U233	<LLD	<LLD	0.00E+000	4.48E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.60E-006
NP237	3.62E-002	2.55E-005	4.64E-006	1.89E-006
PU238	1.86E-003	3.18E-002	1.31E-002	9.00E-004
U238	<LLD	<LLD	0.00E+000	1.45E-005
PU239	1.90E+001	1.18E+000	4.58E-001	3.34E-002
PU240	1.33E+000	3.03E-001	1.25E-001	8.57E-003
AM241	4.20E-001	1.44E+000	9.92E-001	8.87E-002
PU241	2.79E-002	2.87E+000	1.19E+000	8.12E-002
PU242	6.13E-003	2.42E-005	1.00E-005	0.00E+000
AM243	1.92E-003	3.84E-004	7.02E-005	5.89E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-7-14

ITR: _____ Date: 1-9-14

Automated Independent Technical Review

Count Sequence Number: 24058 Batch Number: 1LANDA1886
Counter ID: MCS HENC #1
Container ID: 69069
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. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 1-6-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69069**

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 : 69069.D
Acq On : 10 Jan 2014 2:11 pm (#1); 10-Jan-14, 14:10:41 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 14:19:24 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	3328127	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.884	117	2677256	177.50	ppmv	0.02
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0140
Examination Date:	12/23/2013
Waste Container ID:	69103
Video/Audio Recorded Media Number:	LA-RTR2-13-0140 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 170.0 kg Tare Wt.: 145.1 kg Net Wt.: 24.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 69103

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):	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):	0.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	22.4
Soils (S):	
Total WMP Weight:	24.9

CCP Radiography Data Sheet

Waste Container ID: 69103

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		12/23/2013
Print Name	Signature	Date

5861995

NDA 2000 Assay Report

Item Information

Item ID:	69103		Count Sequence Number:	24074	
Operator:	D3PW2DK1\operator				
Assay Start:	1/9/2014 2:59:57 PM				
Description 1:	1LANDA1887				
Description 2:	POC 170.0				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	24.9 kg	Net:	24.9 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		0.720 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24074	Batch Number:	1LANDA1887
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:	69103	Analysis Date:	1/9/2014

Net Weight	24900.0 g		
Pu mass	7.02E+001	+- 2.73E+001	g
TRU Alpha Activity	7.72E+000	+- 2.44E+000	Ci
TRU Activity Concentration	3.10E+005	+- 9.79E+004	nCi/g
Pu-239 Equivalent Activity	7.88E+000	+- 2.44E+000	Ci
Pu-239 FGE	6.58E+001	+- 2.72E+001	g
Decay heat	2.46E-001	+- 7.84E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.26E-007
U233	<LLD	<LLD	0.00E+000	5.62E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.75E-006
NP237	3.87E-002	2.73E-005	5.19E-006	2.51E-006
PU238	8.97E-003	1.53E-001	6.73E-002	1.45E-003
U238	<LLD	<LLD	0.00E+000	1.23E-005
PU239	6.55E+001	4.06E+000	1.69E+000	3.84E-002
PU240	4.59E+000	1.04E+000	4.57E-001	9.85E-003
AM241	7.17E-001	2.46E+000	1.70E+000	1.22E-001
PU241	9.19E-002	9.46E+000	4.15E+000	8.95E-002
PU242	2.18E-002	8.61E-005	3.78E-005	0.00E+000
AM243	2.42E-003	4.84E-004	9.22E-005	7.99E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-14

ITR: _____ Date: 1/14/14

Automated Independent Technical Review

Count Sequence Number: 24074 Batch Number: 1LANDA1887
Counter ID: MCS HENC #1
Container ID: 69103
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/9/2014

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 Chamberlain 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: **69103**

BDR Number: **LA14FG2008**

Sampling Date: **1/22/2014**

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)

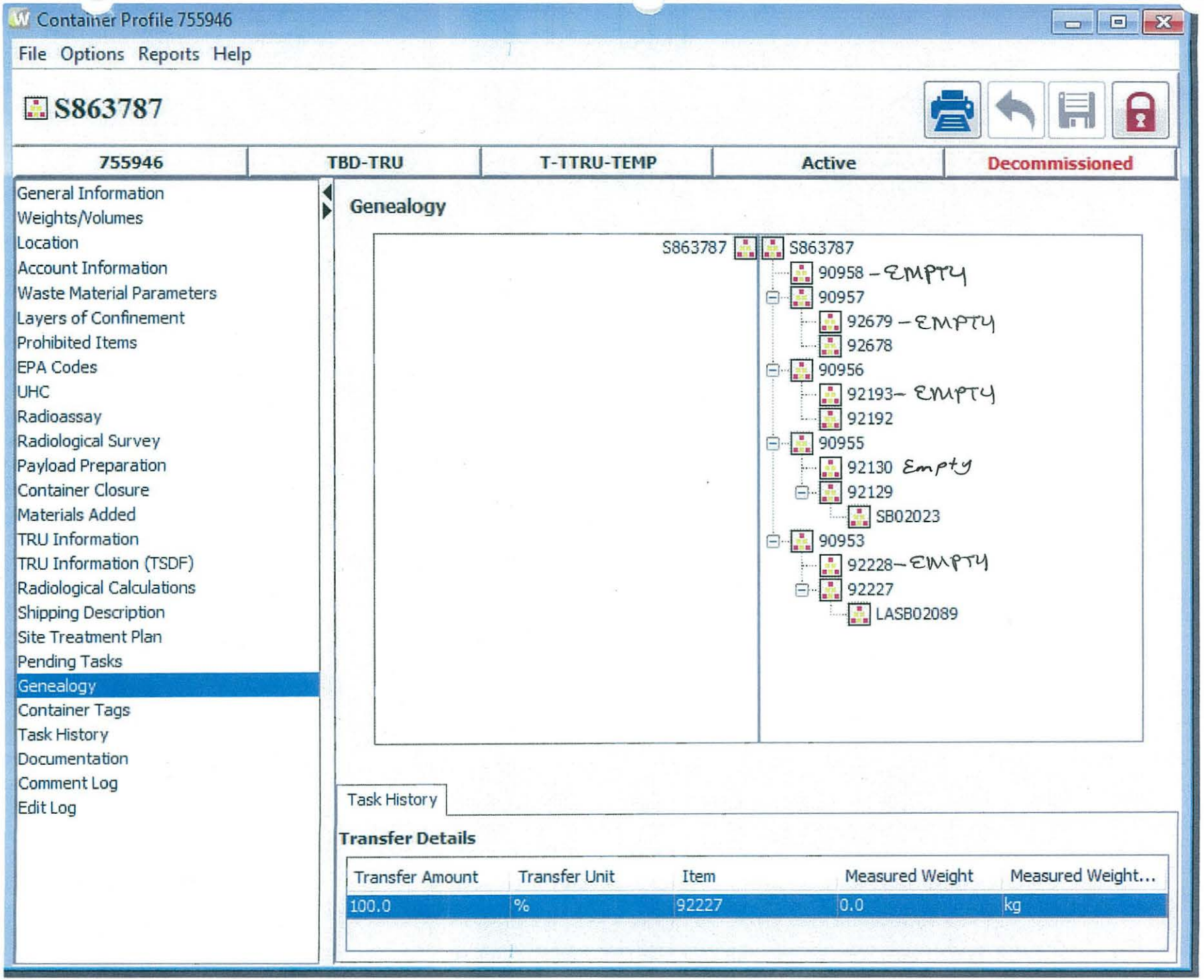
Data Path : C:\msdchem\1\DATA\140122c\
Data File : 69103.D
Acq On : 22 Jan 2014 2:30 pm (#1); 22-Jan-14, 14:29:25 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 22 14:38:01 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	2865495	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.868	117	2343531	177.50	ppmv	0.00
Target Compounds						Qvalue

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

S863787


Container Profile 755946
File Options Reports Help
S863787
755946
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
S863787
S863787
90958 – EMPTY
90957
92679 – EMPTY
92678
90956
92193– EMPTY
92192
90955
92130 Empty
92129
SB02023
90953
92228– EMPTY
92227
LASB02089
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weight...
100.0
%
92227
0.0
kg

Working Copy
Date: 2-15-12cw

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B]	Parent Waste Container No.:	cm 9.24.14 S863787
6.2[4]	Date Processed:	2-15-12
4.1[6][B]	Processing Activity (EP-DIV-AP-0107):	☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack
4.1[6][B]	Prohibited Items:	☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☐ N/A
4.1[6][B]	Parent Waste Container RCRA Designations:	none
4.1[7]	Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:	☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)
4.3[1]/4.3[2]	($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2)	☑ OPERATIONS ☐ WARM STANDBY
4.3[4][B]	Platform Scale: Equipment No.:	019065
	Cal. Due Date:	9-3-12
4.3[5][B]	($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1)	☑ YES ☐ NO
4.3[6]	($) Stationary Fire Watch has been established: (> 300 PE-Ci Equivalent Combustible) (SAC 5.10.1.7.2)	N/A (Initial and Date)
4.3[7 [A]	Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:	☑ YES ☐ NO
4.3[8][D]	WCG glove and bag-in/bag-out bag inspection:	☑ SAT ☐ UNSAT
	Performed By: Eddie Rios (Waste Handling Tech (print)) Eddie Rios (Signature) 187823 (Z #) 2-15-12 (Date)	
5.[16]	Prepared Parent Drum Weight (lb):	329.6 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb

ATTACHMENT 1

Page 2 of 3

cm 9.24.14

4.1[6][B] Parent Waste Container No.: S868787

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 329.6 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.	90953			
10.1[4]	Daughter Drum Filter No.	CL-1354			A
10.1[4]	Daughter Drum Bag Filter No.	CL-211		N	
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	NUCFIL
	Model No.		036	036	036
	Serial No.		EL238	LL-144	LL-145
	Date of Manufacture		12/11	12/11	12/11
10.2[5]	POC ID No		STD-876	STD-847	STD-846
10.2[7][B]/10.2[6]	POC Item Description	J A	Lead	Sorbent	Sorbent
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.		EL-238	LL-144	LL-145
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		CRiG 187822	CRiG 187822	CRiG 187822
10.2[14]	POC Assembly Gross Weight (lb)		379.2	399.6	417.4
10.2[15]	POC Rad. Survey Results (mrem/hr)		800	800	800
10.3[3][A]	Approx. Containerized Liquid Vol./Units	Absorbed Bgallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead lined 55 gallon liner			
10.3[5][A]	Free Liquid Volume/Units	Bgallons Absorbed			
10.3[9][A]	PCB-contaminated Waste Description	none		N	A
10.3[9][B]	PCB Item ID No.	none			
10.3[10]	Remaining Waste Description	Cotton cloth Absorbent			
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	40%	95%	95%	95%
10.5[4]	Description Waste Added During Processing	Cheese cloth Absorbent			

POC ID No 90955 90956 90957

9-24-14

ATTACHMENT 1

Page 3 of 3

4.1[6][B] Parent Waste Container No.: S863787

Comments: Salts, bags 8 gallons of liquid, cheese cloth, Absorbant added, pH of 2 to 3 neutralized to 8 pH, took 3 poc's due to load also being > 190 rad/h.

11.1[1] Performed By: Robbie Rios, Eddie Rios, 16[illegible] 2-16-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez, [signature], 14935, 3/14/12
SOS/SOM (print) Signature Z # Date/Time

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

for 9-24-14

85-Gallon Overpack ID Number ~~90957~~ 90958

RECORD Drum Filter information:	NUCFIL
Filter ID Number:	HE-483
Date of Manufacture:	4/10

TORQUE WRENCH INFORMATION

Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#	N/A	M&TE ID#	035373
Cal Expiration Date		Cal Expiration Date	5-30-12
			+/- 336 in-lb
Tolerance		Tolerance	+/- 60 ft-lb
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) N/A in-lb ☑ N/A

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

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

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

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
Eddie Rios	Eddie Rios	E.R.	180822	2-16-12
B. Fordham	B. Fordham	B.F.	235630	2-16-12

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

Drum ID#: 90953

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

RECORD drum information:
- Purchase Request #: 415090
- Lot #: 0220644
- Date of Manufacture: 2011

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

RECORD bag filter information:
- Manufacturer: Nuc-Fil
- Model #: 036-DA-PVC
- Serial #: CL-211
- Date of Manufacture: 12-11

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:
- ☑ Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- ☑ Place cardboard/plastic liner into drum liner bag/filter assembly
- ☑ Line up filter with drum seam
- ☑ Place liner/bag/filter assembly into drum
- ☑ Roll excess liner bag into cardboard liner/plastic liner

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

RECORD drum filter information:
- Manufacturer: Nuc-Fil
- Model #: 019-DS
- Serial #: CL-1354
- Date of Manufacture: 3/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	+/- 5% CW	Range (ft-lbs or in-lbs):	+/- 5% CW
Tolerance:	+/- 6% CCW	Tolerance:	+/- 6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: B. Fordham Signature B. Fordham Z#: 235635

5. Weigh Drum Assembly
RECORD weight information
- Tare witght (lbs) 75.4
- File ID #: 090065
- ☑ Write the tare weight on drum using permanent marker

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

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

Operator Print: B. Fordham Operator Sign: B. Fordham Z#: 235635 Date: 2-8-12
Verifier Print: Eddie Rios Verifier Sign: Eddie Rios Z#: 187822 Date: 2-16-12

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

DRUM ID#: 90953

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

- [x] Mount lid with filter directly over drum seam.
- [x] Install ring with bolt positioned downward and directly over drum seam.
- [x] 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.

- [x] Tighten jam nut.

Record torque wrench information:

MT&E # : 018373

Cal expiration date: 5-30-12

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

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

2. DRUM LABELING

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

- [x] Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.
- [x] Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.
- [x] Place one yellow radioactive waste label between the top two rolling hoops
- [x] 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

- [x] 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.): 019065

Scale ID#: 019065

- [x] Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

- [x] Have RCT monitor drum prior to moving to storage area.
- [x] Place attachment 1 and 2 and HMPT Tag into a protective sleeve.
- [x] Complete TWSR.

Operator Print/Sign: [signature] Date: 2-16-12

Verifier Print/Sign: B. FORDHAM [signature] Date: 2-16-12

WDP TRU Waste Container Management Operations

UET

Document No: EP-DIV-AP-0107
Attachment: 1
Revision: 1
Effective Date: 12/22/2009

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S863787 Container Type: 85-GAL Gross Weight (lbs): 384
Inner Seal #: 021022 Filter Prefix: LAVC Filter Serial #: 00009; 05804
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A02024
Total PE-Ci Activity: 3.06E+00 Equivalent Combustible PE-Ci: 1.16E+00 AM-241 PE-Ci: No data
Total Fissile Gram Equivalents: 33.8 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/13/2007 Comment: Impenetrable Obj, Liner Not Punctured,
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☑ VE ☐ 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 / D. W. Jones / 117434 / 9.1.10
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. Waste record indicates leached solids in form of nitrate salts. 11 items, heaviest is 28 lbs. Net weight is 216 lbs. May require RWP for >100 mrem/hr @ 30-cm.

Performed By: Michael Garcia / Michael Garcia / 099143 / 9/4/10
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: Steve Gallegos / Steve Gallegos / 176905 / 9.14.10
TRU Remediation Operations (Print) / Signature / Z Number / Date

Noncertified TRU Waste Drum Item Information

DrumID: 021022

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	50X27E1		10.480	NITRATE SALTS		3.05	52	9/13	G468
2	5LR14E1		10.100	NITRATE SALTS		13.75	52	9/13	G468
3	50X13E1		8.660	NITRATE SALTS		2.12	52	9/13	G468
4	5DS1E1		6.640	NITRATE SALTS		5.76	52	9/13	G468
5	60X6W1		6.320	NITRATE SALTS		5.2	52	9/13	G468
6	60X10W1		5.180	NITRATE SALTS		4.48	52	9/13	G468
7	5DS21W3		5.390	NITRATE SALTS		1.83	52	9/13	G468
8	5DS21E1A		10.760	NITRATE SALTS		2.94	52	9/13	G468
9	5DS21E1B		10.830	NITRATE SALTS		2.52	52	9/13	G468
10	5DS7E1A		11.090	NITRATE SALTS		1.98	52	9/13	G468
11	5DS7E1B		12.810	NITRATE SALTS		2.29	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	45.92	98.26
Totals	45.92	98.26

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 9.15.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	237975	9-21-10
	/	/	/

Container No. (7.[1]):	S863787	S862379	56651
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	9.16 ~~72~~ 13
New Filter Vent No.: (7.[8][A]):	72	72	9.16 ~~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]):		S863781	S862379	56651
	Hydrogen Reading (ppm) (7.[10]):	345.40 ppm	Ø ppm	204.74 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	D38371
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:
All 55 gallon drums are sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera (Alicia Herrera) 198450 9.16.10
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 (Kenny Romero) 111788 9.27.10
Waste Handling Supervisor (print) Signature Z# Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100915c\
Data File : S863787.D
Acq On : 15 Sep 2010 12:38 pm (#1); 15-Sep-10, 12:37:16 (#2)
Operator : RG
Sample :
Misc : 55 GAL. LFL DRUM INSIDE 85 GAL. OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 15 12:46:34 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Aug 18 13:26:05 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.730	96	3173315	207.75	ppmv	0.08
15) Chlorobenzene-d5	6.049	117	2409410	180.75	ppmv	0.08
Target Compounds						Qvalue
1) Hydrogen	1.663	GC1	2647m	345.40	ppmv	

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

vocgas.m Wed Sep 15 12:46:56 2010

PROJECT NAME _____ NOTEBOOK NO. _____

2-16-12

0600 Assuming WCRRF operations center - Chelande.
0611 Starting outside rounds.
0613 Starting inside rounds.
0615 Pre job briefing being conducted by SDS.
0630 Item #60 is ODS per CSE documentation ok to proceed.
0640 Completed outside rounds.
0649 Completed inside rounds.
0702 Inside and outside rounds signed off by SDS.
0715 Mode change performed we are now in operations
0753 Dry inventory spreadsheet ~~KF~~ 2-16-12 now states 800 pci per inventory
0813 Starting to denest 4 drums
0830 Completed denesting of drums
0833 bagging on ~~3842~~ 3824062
0838 bag off complete.
0840 Stack sampling being performed.
0910 bagging off 3824062 and bagging on 3846029
0934 Operator notifying ops center of a sealed 30 gallon
0945 30 minute wait has started on sealed 30 it has been breached.
1018 Completed 30 minute wait time continuing to process
1041 bagging on 3863787 and bagging off 3846029
1101 Operators bagging on 3822802 instead of 3863787
1132 bagging off 3822802 and bagging on 3823159
1210 bagging off 3823159 and bagging on 3863787.
1411 Starting movement out of 50-69.
1453 Starting outside rounds.
1501 Starting inside rounds
1515 Item #60 is ODS per CSE documentation ok to proceed
1520 Completed movement out 50-69
1522 Completed outside rounds.
1542 Starting bag off of 3863787 and 3 PCS
1543 Completed inside rounds.
1619 ~~1619~~ Mode change performed we are now in warm
1638 ~~Complete~~ Started movement out of 50-69
1649 movement out of 50-69 complete.
1650 Inside and outside rounds signed off by SDS.
1655 mode change performed we are now cold in 50-69 warm in WCRRF yard.
1700 end of day WCRRF operations center secure - Chelande

no further entries this page

SIGNATURE _____ DATE _____ 20

252

PROJECT NAME _____ NOTEBOOK NO. _____

2-16-12

0600 Reviewed SOS Turnover Assuming WCRR SOS Position. Anthony V.S

0615 Starting Pre-Job briefing

0655 Concluded Pre-Job Briefing

0702 Reviewed Inside & Outside Rounds

0715 Mode change complete

1615 The SOM, OM, SSW realized the HEPA Vacuum was not the right one cause of the seal.

1619 Mode change complete From operations to warm in yard & building

1658 REVIEWED Inside & Outside rounds

1700 END of SHIFT SECURING WCRR SOS Position. Anthony V.S

Further Entries of this Page

SIGNATURE _____ DATE _____ 20

READ AND UNDERSTOOD _____ DATE _____ 20

PROJECT NAME 2-16-12 NOTEBOOK NO.

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

0615 Attended pre-job briefing conducted by Shift Operations Supervisor. Discussed being cautious when handling material inside the WCG and ensure the small lead port window doesn't get hit.

0640 Morning call in with FOD. No new issues to discuss with crew.

0715 Mode change complete. WCRR YARD and 50-69 from WARM to OPERATIONS mode.

0725 SOM reviewed books in operation center. IWD book has some IWD's that will be expiring in March. SOM will sent e-mail to Energy Solutions manager to ensure IWD's are being revised.

0855 Rate entry - 0705 and Hepa filters on WCG (outlets) are reading at -0.57 inches of WC (within operational limit). SOM will schedule the HEPA filter replacement in accordance WITH EP-WCRR-WO-WOP 0302.

1010 Energy Solutions manager was notified of expiring IWD's via e-mail.

1300 Weekly staff meeting held at JA50-54. SOM brought up production concerns. ~~[illegible]~~ 2-16-12 LLW boxes are on issue getting a facility to inspect waste per NFT. WCRR received 2-6-12 and are awaiting on pathforward for LLW boxes.

1545 Went to walkdown ARTIC with SSW and discovered that Hepa VAC that is scheduled to be used for maintenance work on 2-17-12 isn't sufficient. RCTs will not release vacuum due to no confinement. It is sitting on a 55 gallon drum.

1619 Mode change complete. WCRR YARD and 50-69 from OPERATIONS to WARM mode.

1655 Mode change complete WCRR YARD from WARM to WARM and 50-69 from WARM to COLD standby.

1700 Securing the watch. [signature]

No Mother Entries

SIGNATURE [signature] DATE 2-16 20 12

READ AND UNDERSTOOD DATE 20

UET
~~Archive Copy~~
10-22-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

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

6.2[4] Date Processed: _____

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: _____

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.: _____
Cal. Due Date: _____

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

ATTACHMENT 1
Page 2 of 4

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	[illegible]			
10.1[4]	Daughter Drum Filter No.	AM-831			
10.1[4]	Daughter Drum Bag Filter No.	L42555			
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	[illegible]			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	[illegible]			
10.5[3]/10.6[2]	Description Waste Added During Processing	[illegible]			

ATTACHMENT 1
Page 4 of 4

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

Comments: [illegible]

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

11.1[7] Reviewed By: Jose Jerez / [illegible] / R21452 / 11-5-12 / ~~10-7~~ 1012 11-5-12
SOS or designee (print) Signature Z # Date/Time

LET

10-2-12 W

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: nucfil
Model No.: 013
Serial No.: HL-963
Manufacture Date: 8-11

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

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

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

Performed By: Michael Romero Michael Romero [illegible] 10-2-12
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Michael Romero Michael Romero [illegible] 10-2-12
Waste Handling Technician (print) Signature Z # Date

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

[illegible] Jose Jose [illegible] 11-5-12

10-22-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

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

7.[25] Overpack drum closure ring torque wrench information
M&TE No.: [illegible]
Cal. Expiration Date: [illegible]
Range in ft-lb: [illegible]
Tolerance: [illegible]

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

Performed By: [illegible] / [illegible] / [illegible]
Waste Handling Technician (print) Signature Date

7.[28] Overpack drum closure ring torque value: [illegible] 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: [illegible]
Platform scale calibration expiration date: [illegible]

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

Comments: [illegible]

8.1[3] Performed By: [illegible] / [illegible] / [illegible]
Waste Handling Technician (print) Signature Date

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

8.1[7] Reviewed By: [illegible] / [illegible] 10/22/12 11-5-12
Supervisor or designee (print) Signature Date

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

Drum ID#: 1un

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 416265
Lot #: 0229225
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPV 1.5 - 2 SPVC
Serial #: L-42.55
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 #: AM-331
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	10-19-12	Cal Expiration Date:	10-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% CW ±6% CCW	Tolerance:	±3% CW ±6% CCW

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

[x] Yes [ ] No

Print Name: Michael Romero Signature: Michael Romero Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 75.4 LBS
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Michael Romero Operator Sign: Michael Romero Z#: 182723 Date: 10-11-12

Verifier Print: Brandon Chavez Verifier Sign: [signature] Z#: 204742 Date: 10-22-12

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

DRUM ID#: 98227

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓Mount lid with filter directly over drum seam.

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

✓Engage bolt and nut and torque per manufactures instructions

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

✓Tighten jam nut

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3/15/13

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

Tolerance ± - 3% CW ± - 6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 271.4

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: Joe Quintana Date: 10/22/12

Verifier Print/Sign: Brandon Chavez Date: 10-22-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90953 | Container Type: 55-GAL | Gross Weight (lbs): 204

Container Seal #: None | Filter Prefix: None | Filter Serial #: CL-1354

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

TWSR Comments: PARENT #S863787

Total PE-Ci Activity: 7.65E-01 | Equivalent Combustible PE-Ci: 2.87E-01 | AM-241 PE-Ci: 6.21E-02

Total Fissile Gram Equivalents: 8.5 | Total Surface Dose Rate (mrem/hr): 29

EPA Code(s): D008

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/27/2012 | Comment: Impenetrable, S3000

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

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

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

Nitrate salts mixed with Waste Loc 770 from previous repack campaign. A minimum of 1:2 Volumes of kitty litter/zeolite must be mixed with 1.0 Volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) | Signature: Susan B. Ramsey | 100681 (Z Number) | Date: 9/4/12

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts/debris

Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign. This resulting daughter 55-gal drum may contain nitrate salts or a combination of nitrate salts and debris. RTR PS identifies impenetrable item(s) (likely homogeneous nitrate salts or debris such as lead). Nitrate salts may contain undocumented liquids (requiring adjustment to the admixture/nitrate salt ratio). Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Net Wt: 135 lb

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Valerie Rhodes (Signature) | [redacted] (Z Number) | 10/11/12 (Date)

TRU Remediation Operations

Valerie Rhodes

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

Other Specific Safety Concerns: Use Kevlar gloves to process waste. Do not push or press on waste. Use proper tools

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Jose Jerez (TRU Remediation Operations (Print)) | Jose Jerez (Signature) | 221452 (Z Number) | 10-11-12 (Date)

OK Z# 249750 10/15/12

IHS Review: RS 206362 10.11.12

Noncertified EMU Waste Drum Item Information

DrumID: 021022

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	HT	Auth (Fg/Lo)	Comments
1	5DX27E1		10.480	NITRATE SALTS		3.05	52	9/13	G468
2	5LR14E1		10.100	NITRATE SALTS		13.75	52	9/13	G468
3	5DX13E1		8.680	NITRATE SALTS		2.12	52	9/13	G468
4	5DS1E1		6.840	NITRATE SALTS		5.76	52	9/13	G468
5	6DX6W1		6.320	NITRATE SALTS		5.2	52	9/13	G468
6	6DX10W1		5.180	NITRATE SALTS		4.48	52	9/13	G468
7	5DS21W3		5.380	NITRATE SALTS		1.83	52	9/13	G468
8	5DS21E1A		10.760	NITRATE SALTS		2.94	52	9/13	G468
9	5DS21E1B		10.830	NITRATE SALTS		2.52	52	9/13	G468
10	5DS7E1A		11.090	NITRATE SALTS		1.98	52	9/13	G468
11	5DS7E1B		12.810	NITRATE SALTS		2.29	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	45.92	98.26
Totals	45.92	98.26

ATTACHMENT 1
Page 1 of 1

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

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

Container No. (5.[1])	9C953					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	PDS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	14.70 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	110.19 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 (7 #)

Reviewed By: NATHAN WALES (CCP (Print)) 238866 (7 #)

Comments: None

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

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

6.1[3] Performed By SUSAN RAMSEY / Susan Ramsey (Waste Handling Operator (print) / Signature) 100681 (7 #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90953.D
Acq On : 5 Oct 2012 12:43 pm (#1); 05-Oct-12, 12:43:14 (#1)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed (Sig #1 , (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 12:52:10 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.627	96	7341318	201.25	ppmv	0.09
15) Chlorobenzene-d5	5.943	117	6215586	177.08	ppmv	0.07
Target Compounds						Qvalue
1) Hydrogen	1.607	GC1	779	110.14	ppmv	100
17) Toluene	4.906	92	285486	14.70	ppmv	98

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

255 PROJECT NAME

10 2242

0600 Assuming WCRRF operations center - [illegible]
0615 Prejob being conducted by SOS
0803 mechanics entering TASD 69 to perform drumlift lubrication WO # 00445675 and drumlift mechanical WO # 00437074-01.
0831 Starting movement from transportainer to transport vehicle.
0851 Permission granted to lower vehicle access gates.
0900 Starting outside rounds
0920 electricians entering TASD 69 to perform drumlift electrical WO # 00437075-01
0925 Completed outside rounds.
0928 Vehicle access gates have been restored movement to transport vehicle has been completed.
1041 starting drumlift load test
1115 Starting inside rounds.
1121 drum lift lubrication, mechanical and electrical has been completed.
1200 Inside rounds completed.
1212 Inside and outside rounds signed off by SOS.
1233 mode change performed TASD 69 and WCRRF yard [illegible] operations.
1236 Starting movement into SD 69
1330 Fire protection performing 441 quarterly [illegible] inventory.
1419 bagging on 90953
1505 Starting inside rounds
1507 Starting outside rounds
1518 Inside rounds completed.
1520 Completed ~~[illegible]~~ [illegible] outside rounds.
1531 starting bag off of 90953
1548 bag off complete.
1602 Inside and outside rounds signed off by SOS
1605 mode change performed by SOM TASD 69 and WCRRF [illegible] [illegible] mode
1114 1650 end of day WCRRF operations [illegible]

[illegible] this page

10-22-12

0600 Reviewed previous turnover and assumed the WCRR SOM position. Genevieve S. Fernandez

0615 Attended pre-job briefing conducted by SOS. Discussed drum lift maintenance to be worked today. Spoke to operations on ensuring a stop watch is available for performing load test. Operations is waiting on MSS to begin work.

0720 Attended pre-job briefing conducted by MSS supervisor on drum lift maintenance. RP-1 briefed mechanics and operators on maintenance RWP. SOM released WO #s. 445675-01 (M) Drum lift lube and 437074-01 (A) Drum Lift (mechanical).

0746 Released WO #437075-01 (A) Drum Lift Electrical.

0750 Late entry 0600 operation center notified SOM that pest control will be called to come out to TA50-84 to pick up a rat that was caught in the hallway. [illegible]

0907 Released WO #448462-01 50-54 repair the roof hatch closure.

1123 Completed drum lift maintenance successfully. Waiting on CSE reviews, and final signatures

1221 All work packages have been reviewed and signed by MSS CSE and SOM.

1233 Mode change complete WCRR YARD and 50-69 from WARM/COLD to OPERATIONS/OPERATIONS.

1315 WO #416722-06 50-WCRR lockshop support to scope locks on fire cabinet located at TA50-ARTIC. MSS was advised not to perform any work inside 50-69 due to mode applicability not allowing maintenance in OPERATIONS.

1316 Emerged (combustible) loading SR for 10-22-12 due on 10-24-12. Work may be performed in operations.

1550 ~~Late entry~~ (10-22-12) Notified by OCO that combustible loading surveillance was conducted but not completed. Fire Protection Engineer had to go back and work on figures. She will hand deliver first thing on 10-23-12 for final signatures and completion.

1605 Mode change complete WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.

1608 Securing the SOM watch. Genevieve S. Fernandez

1155-02

No further entries to this page

Genevieve S. Fernandez

10-22-12

10-22-12 WCRR SOS LOGBook

0600 Assuming SOS position for the Day [signature]
0615 Conducted shift brief need to complete pm's on drum lift prior to 0[illegible]
0640 Concluded shift brief [signature] [signature]
0803 Mechanic entering TA50[illegible] to perform drumlift lubricatio[illegible] WO# 00445675 and drum lift mechanical WO# 00437[illegible] 01
0920 Electricians entering 50-69 to perform drum lift electrical WO# 00437075 01
1041 Starting drum lift load test
1121 drum lift lubrication, mechanical and electrical has been completed.
1212 Rounds signed off
1233 Mode Change Complete Operations Mode in Yard and 50-69
1330 Fire protection performing 4.4.1 Quarterly Combustible
1419 Bagging on Crum
1531 Starting bag off of 90953
1548 Bag off complete
1602 Signed off on rounds
1605 Mode change Complete Yards in WARM 50-69 in WARM.
10-22-12 1615 Securing SOS position for the day [signature]
[illegible] 119

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-RTR2-13-0106
Examination Date:	9/5/2013
Waste Container ID:	92227
Video/Audio Recorded Media Number:	LA-RTR2-13-0106 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.: 126.0 kg Tare Wt.: 33.4 kg Net Wt.: 92.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 92227

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Hardware, closure ring
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):	1.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	76.1
Soils (S):	
Total WMP Weight:	92.6

CCP Radiography Data Sheet

Waste Container ID: 92227

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	9/5/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92227		Count Sequence Number:	23551	
Operator:	D3PW2DK1\operator				
Assay Start:	9/6/2013 1:45:38 PM				
Description 1:	1LANDA1837				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	92.6	kg	Net:	92.6 kg
Container:	Volume:	208.0	l	Full:	75.0 %
Density:		0.590 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23551	Batch Number:	1LANDA1837
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:	92227	Analysis Date:	9/6/2013

Net Weight	92600.0 g			
Pu mass	4.96E+000	+-	1.19E+000	g
TRU Alpha Activity	1.86E+000	+-	8.06E-001	Ci
TRU Activity Concentration	2.00E+004	+-	8.70E+003	nCi/g
Pu-239 Equivalent Activity	1.87E+000	+-	8.06E-001	Ci
Pu-239 FGE	4.69E+000	+-	1.12E+000	g
Decay heat	6.09E-002	+-	2.68E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.80E-002	2.68E-005	4.51E-006	1.47E-006
PU238	4.54E-004	7.77E-003	1.87E-003	3.31E-005
PU239	4.66E+000	2.89E-001	6.95E-002	1.23E-003
PU240	2.98E-001	6.76E-002	1.63E-002	2.88E-004
AM241	4.35E-001	1.49E+000	8.03E-001	3.47E-002
PU241	5.74E-003	5.92E-001	1.42E-001	2.52E-003
PU242	9.94E-004	3.93E-006	9.44E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.94E-007
U233	<LLD	<LLD	0.00E+000	2.95E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.94E-007
U238	<LLD	<LLD	0.00E+000	8.14E-006
AM243	2.26E-004	4.52E-005	7.74E-006	4.23E-006
CM243	1.35E-007	6.61E-006	3.90E-006	6.34E-006

Errors quoted at 1.000 sigma

Operator: D. R. [signature] Date: 9.9.13

ITR: Jim Barton Date: 9/10/13

Automated Independent Technical Review

Count Sequence Number: 23551 Batch Number: 1LANDA1837
Counter ID: MCS HENC #1
Container ID: 92227
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/6/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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: Shiri Chamlin Date: 9-9-13

Attachment 4 – Flammable Gas Analysis Form

5863787

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

Waste Container ID: **92227**

BDR Number: **LA13FG2098**

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

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130909c\
Data File : 92227.D
Acq On : 9 Sep 2013 11:02 am (#1); 09-Sep-13, 11:01:33 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 11:10:05 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	5093157	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.861	117	3874344	177.50	ppmv	0.00
Target Compounds						Qvalue

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

ATTACHMENT 1
Page 1 of 4

10-2-12

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90955

6.2[4] Date Processed: 10-2-12

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

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

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

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

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

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

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

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

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
BE 10-2-12 ~~☑ YES~~ ☐ NO ☐ N/A

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

Performed By: Brandon Chavez [signature] 124882 10-2-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90455

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top. as applicable: 378.6 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) 378.6 lb

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

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

EWMO-FOD (print)	Signature	Z #	Date
	NA		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90955

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92129			
10.1[4]	Daughter Drum Filter No.	AM-899		N	
10.1[4]	Daughter Drum Bag Filter No.	L-3661		A	
10.1[4]	Daughter Drum Purchase Order No.	4162653			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic waste bottle			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90955

Comments: Lead, Plastic, cheese cloth, cardboard liner

11.1[1] Performed By: Brandon Chavez / [signature] 124742 / 10-2-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 122452 10-3-12 1145
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-26-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415251
Lot No.: 220646
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HL-957
Manufacture Date: 8-11

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

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

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

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

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

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

Comments: N/C

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

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

8.1[7] Reviewed By: Jose Jerez (Supervisor or designee (print)) Jose Jerez (Signature) 22452 (Z#) 10-3-12 (Date)

UET

Working Copy
Date: 10-2-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92130

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 040329
- Cal. Expiration Date: 03-15-2013
- Range in ft-lb: 16-80
- Tolerance: ± 3% CW & ± 6% CCW

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

Performed By: Brandon Chavez / [signature] 120780 10-2-12
Waste Handling Technician (print) Signature Z# Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 333.4 lb

Comments: N/A

8.1[1] Performed By: Brandon Chavez / [signature] 120780 10-2-12
Waste Handling Technician (print) Signature Z# Date

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

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

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

Drum ID#: 92129

1. Drum/Lid Assembly

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

RECORD drum information:
Purchase Request #: 416265
Lot #: 0229243
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:
Manufacturer: BOP
Model #: 6CPVC 1.5-2.5 5PVC
Serial #: L3667
Date of Manufacture: 6/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 01903
Serial #: NM 994
Date of Manufacture: 1/13

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 02061W
Cal Expiration Date: 10/19/12
Range (ft-lbs or in-lbs): 40-200
Tolerance: +/- 3% cw, +/- 6% ccw

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

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☐ Yes ☐ No
Print Name: ___ Signature ___ Z#: ___

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 77.0
File ID #: 01906.5

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

6. Label Drum Assembly

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

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

Operator Print: Brandon Chavez Operator Sign: [signature] Z#: 204742 Date: 10-2-12
Verifier Print: Clayton Mullins Verifier Sign: [signature] Z#: 240092 Date: 10/2/12

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

DRUM ID#: 92129

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 manufactores instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 03-15-2013

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

-- Tolerance ± 3% cw & ± 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 234.0

Scale ID#: 09365

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

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area

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

✓ Complete TWSR.

Operator Print/Sign: Brandon Chavez Date: 10-2-12

Verifier Print/Sign: [illegible] Date: 10/2/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90955 Container Type: POC Gross Weight (lbs): 374

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-429, EL-486

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

TWSR Comments: PARENT #S863787 WTS-12STD-878

Total PE-Ci Activity: 7.65E-01 Equivalent Combustible PE-Ci: 2.87E-01 AM-241 PE-Ci: 6.31E-02

Total Fissile Gram Equivalents: 8.5 Total Surface Dose Rate (mrem/hr): 1

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

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

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

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

Nitrate salts mixed with Waste Loc 770 from previous repack campaign. A minimum of 1:2 volume of kitty litter/zeolite must be mixed with the volume of nitrate salts

Performed By: Susan Ramsey (100681) / Susan B. Ramsey / 9/10/12
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts / POC

Net Wt. 64lb. Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using Waste Loc 770. This resulting daughter POC is being repacked to adjust admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium (D007), lead (D008) and mercury (D009). No hazardous chemicals present.

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

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

TRU Remediation Operations

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

Other Specific Safety Concerns:

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Ensure kitty litter is bagged in

Performed By: Gilbert Martinez / Gilbert M. J / 149275 /
TRU Remediation Operations (Print) Signature Z Number Date

IHS. Review. [illegible] CSP. Contains Chromium, Lead, & Hg
9-26-12

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

Noncertified TRU Waste Drum Item Information

DrumID: 021022

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	HT	Auth (Pg/Ln)	Comments
1	5GX27E1		10.460	NITRATE SALTS		3.05	52	9/13	G468
2	51X16E1		10.100	NITRATE SALTS		13.75	52	9/13	G468
3	5GX13E1		4.660	NITRATE SALTS		2.12	52	9/13	G468
4	5D61X1		6.640	NITRATE SALTS		5.76	52	9/13	G468
5	60X6V1		6.320	NITRATE SALTS		5.2	52	9/13	G468
6	60X10V1		5.180	NITRATE SALTS		4.48	52	9/13	G468
7	9D621V3		5.390	NITRATE SALTS		1.63	52	9/13	G468
8	50621R1A		10.760	NITRATE SALTS		2.94	52	9/13	G468
9	5D621E1B		10.830	NITRATE SALTS		2.32	52	9/13	G468
10	5D67E1A		11.090	NITRATE SALTS		1.98	52	9/13	G468
11	5D67E1B		12.810	NITRATE SALTS		2.29	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.)

Material Type	SNM (grams)	Items Net Wt (kg)
52	45.92	98.26
Totals	45.92	98.26

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90955					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

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

Reviewed By: Sara Aragon (CCP (Print)) 237475 (Z #)

Comments: N/A

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

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90955.D
Acq On : 21 Sep 2012 1:44 pm (#1); 21-Sep-12, 13:43:22 (#2)
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 13:52:08 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.578	96	6883281	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.907	117	6132560	177.00	ppmv	0.03
Target Compounds						Qvalue

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

10-2-12
0545 Assuming WCRR operations center. TColeman
0550 Beginning outside rounds.
0615 Prejob being conducted by 506.
0640 Beginning inside rounds.
0650 Outside rounds complete.
0705 Inside rounds complete.
0706 Rounds reviewed by 506.
0720 Initiating a drum movement from 50-69 to a transportainer.
0721 Mode change complete. We are now in operations.
0732 Movement out of facility complete.
0738 Bagging on 90955.
0754 Bag on complete.
0814 Bagging off 90955, bagging on 90811.
0830 Bag off complete.
0853 Bagging off 90811, bagging on 90859.
0910 Bag on complete.
0936 Being relieved by OCC, Clarissa Velarde-TColeman.
0937 Assuming WCRR Operations Center-Velarde.
0939 Starting movement into 50-69.
0955 Completed movement into 50-69.
0958 Bagging off 90859 and POC, bagging on 90756.
1000 Being relieved by OCC Terri Coleman - Velarde.
1001 Assuming WCRR operations center, TColeman.
1033 Bag on Complete.
1041 Initiating a drum movement from 50-69 to a transportainer
1105 Drum movement out of facility complete.
1110 Bagging off, bagging on 90843
1130 Bag on complete.
1153 Bagging off 90843 and 1 POC, bagging on 90870.
1216 Bag on complete.
1226 Permission granted to lower the vehicle access gates to begin receipt of drums from Area 6.
1309 Bagging off 90870, bagging on 90810.
1326 Bag on complete.
1400 Initiating a drum movement from 50-69 to a transportainer.
1404 Bagging off 90810, bagging on 90875
1405 Late entry at 1320, vehicle access gates restored. Transportainer secured. TC
1406 Drum movement out of the TC 10-2-12 facility complete.
1432 Initiating a drum movement from transportainer to 50-69.
1433 Bag off complete. Starting outside rounds.
1442 Move into facility complete.
1453 Outside rounds complete.
1511 Bagging off 90875 and 1 POC, to TC 10-2-12.
Continued on next page. TColeman

SIGNATURE ____ DATE ____ 20
READ AND UNDERSTOOD ____ DATE ____ 20

242 PROJECT NAME NOTEBOOK NO

continued from previous page. TColeman

1550 Bag off complete. Beginning inside rounds.

1616 Inside rounds complete.

1622 Rounds reviewed by SOS.

1624 Mode change complete. We are now in warm stand.

ff 1630 End of day. Operations secure - TColeman

No further entries this page.

SIGNATURE DATE

READ AND UNDERSTOOD DATE

0600 ~~Reviewed SOM tuned~~ 10/2/12 Assumed SOM position.

0615 Attended prejob brief conducted by SOS. Discussed yesterday's processing of SP-72 salt drums. Workers added 1.5/1 ratio of Kitty litter to waste and saw no significant decrease in dose rate => repacked into new POC's. Workers briefed to exit/entry requirements to WCRR yard.

0721 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0730 (Late Entry 0635) Per LANL IH and ES IH VOC monitoring of transportainer no longer required. Cancelled Standing Order WCRR-2012-0012 and briefed all personnel.

0735 Notified by Work Control that Characterization (Gamma Spec) to be emerged for tomorrow.

0736 Informed by Inventory Control that no outgoing shipment will take place today.

0738 RP-1 supervisor reported that yesterday's contamination on drum slide had decayed away overnight - verifying radon contamination.

1030 WO# 427964-01 Standing / Expedited WO released to Cut holes in walls in Bldg 50-84 to investigate Rodent infestation.

1200 On Solution Package conference call w/ prod control / engineering / LTP management. Discussed increase in production w/ SP 72 drums and need to keep shipments on schedule. Require SEDS / LFL's to be increased.

1255 Notified by MSS supervisor that no evidence of rodents in walls or ceiling of 50-~~84~~ 10/2/12 - 84. Walkdown to scope new furnace install will occur ~~occur~~ 10/2/12 tomorrow.

1545 Notified by OM that WCRR needs to be in a standdown tomorrow morning until Con Ops Brief is given on Procedure Compliance. Notified OCO's and SOS and RP-1 supervisor.

1624 Completed Mode Change: WCRR yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1630 Secured SOM position.

10-4-12

No further entries this page

SIGNATURE DATE 10/2 20 12

READ AND UNDERSTOOD DATE 20

10-2-12 WCRR 505 Log Book

0600 Assuming 505 position for the day. Jas Jy

0615 Starting Pre-Job brief. Discussed Barriers and Postings. Ensure that all entries and exit into the WCRR Yard are performed through the operations center. Continuing to process nitrate salt waste drums. One shipment in bound

0640 Concluded Pre-Job Brief.

0706 Signed off on inside and outside rounds.

0721 Mode Change Complete 50-69 and yard are now in Ops Mode.

0738 Starting to bag on first drum for the day

0750 Bag on Complete.

0814 Bagging off first drum and bagging on second drum.

0830 Bag off and Bag on Complete.

0853 Bagging off second drum, Bagging on third drum

0910 Bag on Complete

1000 Bagging off third drum, Bagging on fourth drum.

1033 Bag on Complete

1041 Initiating Drum movement from 50-69 to Transportainer

1105 Drum movement complete out of facility

1110 Bagging off fourth drum, Bagging on fifth drum

1130 Bag on Complete

1153 Bagging off fifth drum, Baggin on sixth drum

1216 Bag on Complete 10-2-12

1226 Initiating drum movement from Transport Vehicle to Transportainers

1309 Bagging off sixth drum, Bagging on seventh

1326 Bag on Complete

1400 Drum movement from 50-69 to Transport Vehicle

1404 Bagging off seventh drum, Bagging on eight

1406 Drum movement out of 50-69 Complete.

1550 Bag off of last drum complete

1622 Signed off on rounds

1624 MODE Change Complete. WARM in 50-69 and yard

1630 Securing 505 position for the day. Jas Jy

No Further Entries on this Page

5863787

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-RTR2-13-0001
Examination Date:	1/7/2013
Waste Container ID:	92129
Video/Audio Recorded Media Number:	LA-RTR2-13-0001 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [X] Yes BM 1-9-13 BM 1-9-13 BM 1-9-13 NCR No.: ~~N/A~~ NCR-LANL-0020-13 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 102.5 kg Tare Wt.: 33.4 kg Net Wt.: 69.1 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: 92129

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM:

OM: Scrap lead

OI:

C: Fiberboard packing material

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):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	25.0
Other Inorganic Materials (OI)	
Cellulosics (C):	3.0
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	28.1
Soils (S):	
Total WMP Weight:	69.1

CCP Radiography Data Sheet

Waste Container ID: 92129

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?	BM 1.9.13 ☒ Yes ~~☒~~ No BM 1.9.13
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~~ BM 1.9.13 NCR-LANL-0020-13 BM 1.9.13

RTR Operator:

Benito Maestas	B Maestas	1/7/2013
Print Name	Signature B Maestas	Date 1.9.13

NDA 2000 Assay Report

Item Information

Item ID:	92129	Count Sequence Number:	15747		
Operator:	DCLTD231\Operator				
Assay Start:	5/10/2013 9:48:30 AM				
Description 1:	2LANDA1156				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gal Drum				
Weight:	Net:	69.1	kg	Net:	69.1 kg
Container:	Volume:	208.0	l	Full:	70.0 %
Density:		0.480	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:	15747	Batch Number:	2LANDA1156
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92129	Analysis Date:	5/10/2013

Net Weight	69100.0 g			
Pu mass	4.19E+000	+-	1.33E+000	g
TRU Alpha Activity	6.82E-001	+-	9.74E-002	Ci
TRU Activity Concentration	9.87E+003	+-	1.41E+003	nCi/g
Pu-239 Equivalent Activity	6.92E-001	+-	9.75E-002	Ci
Pu-239 FGE	3.95E+000	+-	1.24E+000	g
Decay heat	2.21E-002	+-	3.10E-003	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.92E-002	1.37E-005	2.04E-006	5.60E-007
PU238	3.84E-004	6.64E-003	2.10E-003	3.60E-005
PU239	3.93E+000	2.47E-001	7.82E-002	1.34E-003
PU240	2.51E-001	5.78E-002	1.83E-002	3.13E-004
AM241	1.07E-001	3.71E-001	5.50E-002	1.30E-002
PU241	4.92E-003	5.11E-001	1.62E-001	2.77E-003
PU242	8.38E-004	3.33E-006	1.05E-006	0.00E+000
SR90	5.22E-008	7.21E-006	1.08E-006	0.00E+000
CS137	8.22E-008	7.21E-006	1.08E-006	2.96E-007
U233	<LLD	<LLD	0.00E+000	2.07E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.69E-007
U238	<LLD	<LLD	0.00E+000	8.20E-006
AM243	8.79E-005	1.78E-005	2.78E-006	2.98E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 5-15-13

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

Automated Independent Technical Review

Count Sequence Number: 15747 Batch Number: 2LANDA1156
Counter ID: HENC #2
Container ID: 92129
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 5/10/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
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.
Analysis Status: Override enabled; data marked not available but were used.	
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.

Comments	Disposition
Section 5 - Gamma Analysis Analysis Status: No errors.	 Ok
Ratio of Pu-239 414 to 129 keV line activities is above the limit of 2.50	Not data affecting, neutron results applied.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chambers Date: 5-14-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92129**

BDR Number: **LA13FG2055**

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

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\130514c\
Data File : 92129.D
Acq On : 14 May 2013 1:47 pm (#1); 14-May-13, 13:46:54 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 14 15:30:23 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.571	96	4258891	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.904	117	3724960	177.00	ppmv	0.00
Target Compounds						Qvalue

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

UE 10-9-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90956

6.2[4] Date Processed: 10-9-2012

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

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

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

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

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

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

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

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

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

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

Performed By: B. Foreman / B. Zol 233735 10-9-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90956
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable	404.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	Ø lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	404.2 lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

NA			
EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90956

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	9292		N	
10.1[4]	Daughter Drum Filter No.	am-771			
10.1[4]	Daughter Drum Bag Filter No.	L-1595		A	
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☐ N/A
10.2[4]	POC bag-on bag: Manufacturer	N/A			
	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#)	N			
10.2[14]	POC Assembly Gross Weight (lb)	A			
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	20, 0Z			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)				
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.: 90956

Comments: Plastic, Dirt, POC Lid, POC Bolts, Cardboard, Wood, Kitty Litter, Liquids Absorbed

11.1[1] Performed By: B. Fonseca B. Fonseca 235937 10.9.12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez [signature] 021452 10-10-12 1120
SOS or designee (print) Signature Z # Date/Time

10-3-12 CW

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413954
Lot No.:	211426
Manufacture Date:	10

5.[8] Overpack filtered vent information:

Manufacturer:	Nuctil
Model No.:	013
Serial No.:	HL-722
Manufacture Date:	8-11

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

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

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

Performed By: Michael Romero (Waste Handling Technician (print)) Michael Romero (Signature) [illegible] (Z #) 10-3-12 (Date)

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

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

Comments: N/C

8.1[1] Performed By: Michael Romero (Waste Handling Technician (print)) Michael Romero (Signature) [illegible] (Z #) 10-3-12 (Date)

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

8.1[7] Reviewed By: Jose Jerez (Supervisor or designee (print)) [signature] (Signature) 021452 (Z #) 10-10-12 (Date)

ATTACHMENT 5
Page 1 of 1

10-9-12 JC

9-24-14

WCRRF OVERPACK DRUM CLOSURE DATA SHEET 92193

7.[19] Overpack Drum Unique Identifier No.: ~~92192~~

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

M&TE No.: 040329
Cal. Expiration Date: 3/15/2013
Range in ft-lb: 16-80
Tolerance: +/-3% cw +/-6% ccw

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

Performed By: B. Fordham (Waste Handling Technician (print)) B. Fordham (Signature) 235635 (Z#) 10/9/12 (Date)

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 320.0 lb

Comments: N/A

8.1[1] Performed By: B. Fordham (Waste Handling Technician (print)) B. Fordham (Signature) 235635 (Z#) 10/9/12 (Date)

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

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

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

Drum ID#: 92192

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 #: 4116245
Lot #: 2207125
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: DOF
Model #: AccEye 1.5-2.5 Pnc
Serial #: C-1295
Date of Manufacture: 6-12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCON
Model #: 019DS
Serial #: AM-771
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 020614
Cal Expiration Date: 10-17-12
Range (ft-lbs or in-lbs): 40-200
Tolerance: ±4% ccw, 36% cw

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-80
Tolerance: ±3% ccw 36% cw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Michael Romero Signature: Michael Romero ZP: 182727

5. Weigh Drum Assembly

RECORD weight information
Tare weight (lbs) 76.5 lbs
File ID # 019065

☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Michael Romero Operator Sign: Michael Romero ZP: 182727 Date: 10-3-12

Verifier Print: B. Foreman Verifier Sign: B. Foreman ZP: 235635 Date: 10/9/12

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

DRUM ID#: 92192

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

☑ Mount lid with filter directly over drum seam.

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

☑ Engage bolt and nut and torque per manufactures instructions

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

☑ Tighten jam nut.

Record torque wrench information:

MT&E # : 040329

Cal expiration date: 3/15/13

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

— Tolerance +/- 3% CW +/- 6% CW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

☑ 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.): 265.2

Scale ID#: 08065

☑ 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. Fonsham B. [signature] Date: 10/9/12

Verifier Print/Sign: Don Packard [signature] Date: 10-09-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90956 Container Type: POC Gross Weight (lbs): 400

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-373; EL-97

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

TWSR Comments: PARENT #S863787 WTS-12STD-847

Total PE-Ci Activity: 7.65E-01 Equivalent Combustible PE-Ci: 2.87E-01 AM-241 PE-Ci: 6.21E-02

Total Fissile Gram Equivalents: 8.5 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 ~~D007~~ ve 9/27/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: VE ☐ PID Split ~~Repack~~

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

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

Nitrate salts mixed with Vertiloc 770 from previous repack campaign. A minimum of 1:2 volume to Vertiloc/zeolite should be mixed with the volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan S. Ramsey Z Number: [illegible] 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 # 901b Parent drum CSEDs attached upon receipt of WCRR

Nitrate salts repack campaign using Waste Lock 770. Will be mixing

daughter POC by doing repackaging to adjust the activity/nitrate

ratio by lbs to Nitrate Salts carry waste codes for chromium,

lead, & mercury. No chemicals present.

Neg. organics RWP for ≥100 & ≤1000 mrem/hr

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 9/27/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevlar gloves when processing any waste. Use tools to manipulate waste. Do not push w/ fingers

Processing Determination: ☐ Accept ☐ Reject

TRU Remediation Operations Comments: Use tiny liners to mix in dried waste. Per Procedure

Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) Signature: [signature] Z Number: 149235 Date: 10.1.12

IHS Review for [illegible] ESP Contains lead, chromium Hg 9-27-12.

JJ 224452 10-1-12

Noncertified TRU Waste Drum Item Information

DrumID: 021032

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	50R37E1		10.460	NITRATE SALTS		3.05	52	9/13	G468
2	51R14E1		10.100	NITRATE SALTS		13.75	52	9/13	G468
3	50R13E1		9.660	NITRATE SALTS		2.12	52	9/13	G468
4	5DS1E1		4.440	NITRATE SALTS		5.74	52	9/13	G468
5	60R6W1		6.320	NITRATE SALTS		5.2	52	9/13	G468
6	60R10W1		5.180	NITRATE SALTS		4.48	52	9/13	G468
7	5DS21W1		5.390	NITRATE SALTS		1.83	52	9/13	G468
8	5DS21E1A		10.760	NITRATE SALTS		2.94	52	9/13	G468
9	5DS21E1B		10.850	NITRATE SALTS		2.52	52	9/13	G468
10	5DS7E1A		11.090	NITRATE SALTS		1.90	52	9/13	G468
11	5DS7E1B		12.810	NITRATE SALTS		2.29	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	43.92	98.26
Totals	43.92	98.26

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90956					
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])	177.50 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	158.52 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician.

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

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

Comments: N/A

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

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

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90956.D
Acq On : 21 Sep 2012 2:48 pm (#1); 21 Sep 2012 2:47 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 14:56:12 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	2502555	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2235603	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.316	GC1	39168m	158.52	ppm	
4) Methanol	0.788	31	41863	177.50	ppm	100

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

Vocgas.m Fri Sep 21 14:56:22 2012

10-9-12

0600 Assuming WCRRF operations center - Cvelande
0615 Starting outside rounds
0631 Starting inside rounds
0650 Completed outside rounds
0657 Inside rounds completed.
0705 Inside and outside rounds signed off by SOS.
0715 Mode change performed CV 10-9-12 TA50-69 and WCRRF now in operations.
0747 Starting movement into 50-69.
0822 Bagging on 90848 CV 10-9-11
0830 bag ~~off complete~~ on complete.
0903 bagging off 90848, bagging on 90860
0920 bag on complete
0927 Permission granted to lower vehicle access gates for movement to transport vehicle.
1012 Vehicle access gates have been restored. movement of drums to transport vehicle is complete.
1013 Starting bag off of 90860 and POC will be bagging on 90842.
1035 bag off and bag on complete.
1053 Starting movement into 50-69.
1058 movement complete into 50-69
1100 bagging off 90842, bagging on 90861.
1114 bag on, bag off complete.
1200 bagging off 90861, bagging on 90841
1230 Shift turnover with Teni Coleman - Cvelande
1231 Assuming WCRR operations center. - TColeman
1335 Initiating a drum movement from 50-69 to a transportainer.
1354 Drum movement out of facility complete.
1356 Permission granted to lower the vehicle access gates to begin receipt of drums from Area G.
1408 Bagging off 90841, bagging on 90956.
1440 Bag on complete.
1445 Beginning inside rounds.
1510 Beginning outside rounds.
1512 Inside rounds complete.
1513 Shipment from Area G has been accepted.
1530 Outside rounds complete.
1542 Vehicle access gates restored. Transportainers secure.
1556 Bagging off 90956.
1612 Both rounds reviewed by SOS.
1616 Bag off complete.
1645 Mode change complete. We are now in warm standby.
1646 End of day. Operations secure. - TColeman
No further entries this page.

10/8/12 - 10/9/12

0600 Reviewed previous shift turnover and assumed the WCRR SOM position. [illegible]
0615 Attended pre-job briefing conducted by SAS. Discussed procedure compliance, slow and steady start coming back from a long weekend. SEDs were not reviewed.
0640 JOB call in. Safety topic: slow start from long weekend, and procedure compliance.
0715 Mode change complete WCRR YARD | 50.69 from WARM | COLD to OPERATIONS | OPERATIONS.
0730 SOM to badge office on call.
0805 SOM returned back.
0855 SOM and SSW performing an MOV on shipments.
1015 Completed observation of outgoing shipment from WCRRF to TA-54 Area G. Observed procedure compliance, operators were wearing PPE as required. Procedure being executed was EP-WCRR-DOP-0202. Recommendations is to have procedure with them as a reference. Only attachments were being used. Procedure went through a Major revision and should be used as a reference.
1200 Production Control meeting call in. WCRR has 30 drums to process. Production control has submitted 10 additional SEDs to operations (SOS and E3 manager). SOM action verify that dose rates have been conducted on incoming shipment.
1315 Released WO # 445660-01 Fire Safety. Not performing any work looking at lighting only. Will be back on 10/10/12 when facility | YARD are in WARM.
1400 Notified by RP-1 Supervisor that operations was observed overpacking empty POC's by hand. Procedure doesn't speak to over-packing of POC's. SOM instructed SAS not to perform further overpacks until investigated by IH and ESH-Q manager. E-S manager and ORL notified ESH-Q and IH will investigate on 10/10/12.
1445 Mode change complete WCRR YARD | 50.69 from OPERATIONS | OPERATIONS to WARM | YARD.
1455 Secured watch. [illegible]

10/15/12

No further entries this page

[illegible] 10/9 12

WCRR SOS LOGBOOK

10.9.12

0600 Assuming SOS Position [signature]

0615 Conducted shift Brief went over Revision on WO-DOT-0202.

0645 Concluded shift Brief.

0705 Reviewed Inside And outside Rounds.

0715 Mode Change Complete WCRR In Operations Mode

1612 Reviewed Inside And outside Rounds.

1645 Mode Change Complete

1648 end of shift Securing Position [signature]

No further entries on this page.

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

5863787

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0012
Examination Date:	1/25/2013
Waste Container ID:	92192
Video/Audio Recorded Media Number:	LA-RTR2-13-0012 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 120.5 kg Tare Wt.: 33.4 kg Net Wt.: 87.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	60 %

CCP Radiography Data Sheet

Waste Container ID: 92192

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, pipe component lid

AM:

OM: Scrap lead

OI:

C: Fiberboard, coveralls, fiberboard liner sleeve

R: Rubber glove

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):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	16.0
Rubber (R):	1.5
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	43.6
Soils (S):	
Total WMP Weight:	87.1

CCP Radiography Data Sheet

Waste Container ID: 92192

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

RTR Operator:

Michael Simmons		1/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92192	Count Sequence Number:	21929		
Operator:	D3PW2DK1\operator				
Assay Start:	1/29/2013 11:57:20 AM				
Description 1:	1LANDA1703				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	87.1	kg	Net:	87.1 kg
Container:	Volume:	208.0	l	Full:	60.0 %
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:	21929	Batch Number:	1LANDA1703
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92192	Analysis Date:	1/29/2013

Net Weight	87100.0 g	
Pu mass	2.34E+001 +-	4.48E+000 g
TRU Alpha Activity	6.97E+000 +-	2.86E+000 Ci
TRU Activity Concentration	8.01E+004 +-	3.28E+004 nCi/g
Pu-239 Equivalent Activity	7.03E+000 +-	2.86E+000 Ci
Pu-239 FGE	2.21E+001 +-	4.20E+000 g
Decay heat	2.29E-001 +-	9.54E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.07E-001	7.62E-005	1.41E-005	3.21E-006
PU238	2.15E-003	3.72E-002	7.12E-003	3.81E-005
PU239	2.19E+001	1.38E+000	2.64E-001	1.42E-003
PU240	1.40E+000	3.22E-001	6.18E-002	3.31E-004
AM241	1.51E+000	5.24E+000	2.84E+000	7.44E-002
PU241	2.78E-002	2.89E+000	5.54E-001	2.97E-003
PU242	4.68E-003	1.86E-005	3.56E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.88E-007
U233	<LLD	<LLD	0.00E+000	6.52E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.94E-006
U238	<LLD	<LLD	0.00E+000	1.43E-005
AM243	7.40E-004	1.50E-004	2.82E-005	8.99E-006

Errors quoted at 1.000 sigma

Operator: Jam Barton Date: 2/1/13

ITR: [signature] Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 21929 Batch Number: 1LANDA1703
Counter ID: MCS HENC #1
Container ID: 92192
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/29/2013

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.
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: 1-31-13

3863787

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92192**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	168.98	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.89	
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\130201c\
Data File : 92192.D
Acq On : 1 Feb 2013 2:22 pm (#1); 01-Feb-13, 14:21:19 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 14:30:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.571	96	4507315	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.904	117	3993306	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.605	GC1	1201	168.98	ppmv	100
4) Methanol	0.834	31	16340m	35.89	ppmv	

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

9045+

UET

1 23-13 cw

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90957 5 Cm 9.24.14

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 1-22-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No. 90957

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 420.6 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 420.6 lb
6.2[6]

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

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

N/A
FWMO-FOD (print) Signature 7 = Date

ATTACHMENT 1
Page 3 of 4

4.1.6[.B] Parent Waste Container No.: 90957

Daughter Drums		
10.1[4], 10.2[4]	Daughter Drum No.	92678
10.1[4]	Daughter Drum Filter No.	AM-724
10.1[4]	Daughter Drum Bag Filter No.	E-6055
10.1[4]	Daughter Drum Purchase Order No.	501011
10.1[13][C]	WCG Fire Watch Stationed	☐ YES ☐ NO ☑ NA
10.1[14][C][d][3.11.1[3]	WCG Fire Watch Secured	☐ YES ☐ NO ☑ NA
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 #)	
10.2[14]	POC Assembly Gross Weight (lb)	
10.2[15]	POC Rad Survey Results (mrem/hr)	
10.3[3][A]	Approx. Containerized Liquid Vol. Units	
10.3[5][A]	Free Liquid Volume Units	16 oz.
10.3[7][A]	Opaque Non-penetrable Item Description	N A
10.3[9][A]	PCB-contaminated Waste Description	N
10.3[9][B]	PCB Item ID No.	
10.3[10]	Remaining Waste Description	SEE COMMENTS
10.3[13], 10.4[10], 10.5[4], 10.6[8]	Daughter Drum % Full (%)	90%
10.5[3], 10.6[2]	Description Waste Added During Processing	BAG OUT STUBS

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90957

Comments: ROOM TRASH, POC LIDS, PLASTICS, CARD BOARD, SALTS, KITTY LITTER, NEAUTRALIZER

11.1[1] Performed By: BRIAN GALLEGOS Bi Gallegos 26129 1-23-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: G Mtz A Mtz 141335 1-24-13 0450
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.:	413459
Lot No.:	208849
Manufacture Date:	2010

5.[8] Overpack filtered vent information

Manufacturer:	NUCFIL
Model No.:	[illegible]
Serial No.:	[illegible]
Manufacture Date:	[illegible]

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: Steven Mandragon / Steven Mandragon 104741 1-22-13
Waste Handling Technician (print) Signature 7 # Date

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

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

Comments N/C

8.1[1] Performed By: Steven Mandragon / Steven Mandragon 104741 1-22-13
Waste Handling Technician (print) Signature 7 # Date

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

8.1[7] Reviewed By: G Martinez / [illegible] 14[illegible] 1-24-13
Supervisor or designee (print) Signature 7 # Date

UET Working Copy
Date: 1-23-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92679

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

M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

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

Performed By: Brian Gallegos [signature] 267829 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): 324.8 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos [signature] 267829 1-23-12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: [signature] [signature] 149238 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#: 92678

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 #: Solell
Lot #: 233370
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6 CPVC 1.5-2 SPVC
Serial #: L-6055
Date of Manufacture: 6-12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCEL
Model #: 019-DS
Serial #: 4M-724
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040654	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4%cw ±6%ccw	Tolerance:	±3%cw ±6%ccw

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

[x] Yes [ ] No

Print Name: Michael Romero Signature: [signature] Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 76.0
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Michael Romero Operator Sign: [signature] Z#: 182723 Date: 1-16-13

Verifier Print: BRIAN GALLEGOS Verifier Sign: [signature] Z#: 267129 Date: 1-23-13

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

DRUM ID#: 92678

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 #: 038267

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): 300

Scale ID#: 0190165

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

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area

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

✓ Complete TWSR.

Operator Print/Sign: [signature] Date: 1-23-13

Verifier Print/Sign: Don Pacheco [signature] Date: 01-23-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

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Production Control

Container ID: 90957 Container Type: POC Gross Weight (lbs): 417

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-357; EL-413

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

TWSR Comments: PARENT #S863787 WTS-12STD-846

Total PE-Ci Activity: 7.65E-01 Equivalent Combustible PE-Ci: 2.87E-01 AM-241 PE-Ci: 6.21E-02

Total Fissile Gram Equivalents: 8.5 Total Surface Dose Rate (mrem/hr): 1

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

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: VE ☐ PID Split ☑ Repack

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

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

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

Performed By: Susan Ramsey 100681

Production Control (Print) Signature Susan S. Ramsey Z Number 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: 107 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for [redacted] and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes Valerie Rhodes 112609 10/4/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

✓ Waste Container Information Evaluated JJ 10-19-12 Less Than 170 lbs RTR Video Available

Other Specific Safety Concerns: ~~Use proper ratio of~~ Use proper PPE when processing waste. Do not push or press on waste with hands.

Processing Determination: ✓ Accept Reject

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

Performed By: Jose Jerez [signature] 221452 10-11-12

TRU Remediation Operations (Print) Signature Z Number Date

OK Z# 249750 10/19/12 Utilize hexarmor gloves & tools to handle waste.

IHS REVIEW: KS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 021022

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	50X27E1		10.480	NITRATE SALTS		5.05	52	9/13	C468
2	51X14E1		10.100	NITRATE SALTS		15.75	52	9/13	C468
3	50X13E1		8.660	NITRATE SALTS		2.12	52	9/13	C468
4	5D01E1		4.660	NITRATE SALTS		5.76	52	9/13	C468
5	60X6W1		6.320	NITRATE SALTS		5.2	52	9/13	C468
6	60X10W1		5.180	NITRATE SALTS		4.48	52	9/13	C468
7	50S21W3		5.380	NITRATE SALTS		1.83	52	9/13	C468
8	5DS21E1A		10.760	NITRATE SALTS		2.94	52	9/13	C468
9	5DS21E1B		10.830	NITRATE SALTS		2.52	52	9/13	C468
10	5DS7E1A		11.090	NITRATE SALTS		1.98	52	9/13	C468
11	5DS7E1B		12.810	NITRATE SALTS		2.29	52	9/13	C468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	45.92	98.26
Totals	45.92	98.26

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 10.3.12

Container No. (5.[1])	90957					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	1905					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

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

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

Comments: NWE CM 10.4.12 Per attached email, containers have been verified as POC's.

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

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

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 19298 (Z #) 10.4.12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90957.D
Acq On : 3 Oct 2012 4:35 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 16:43:25 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	2174121	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	1939991	179.50	ppm	0.00
Target Compounds						Qvalue

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

Vocgas m Wed Oct 03 16:43:40 2012

1-23-13

0600 Assuming WERRF Operations center - CVelarde
0615 Pre job briefing being conducted by SOS.
0616 Starting Outside rounds.
0620 Starting inside rounds
0638 Item #1 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 ~~complete~~ CV 1/23/13 complete to transport vehicle.
1000 Mode change performed TASD-109 and WERRF yard now in operations.
1015 Inventory control having problems with labels. Contacting Waste help.
1027 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 OSC - B. Fordham
1126 BAGGING ON DRUM # 90886
1136 BAG on of # 90886 complete
1137 PPE CHECK INSIDE FACILITY S complete
1158 RCT'S HAVE RAISED 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
1225 OPERATIONS ARE BAGGING OFF 1 DAUGHTER AND 1 POC, AND BAGGING ON Drum # 90929.
1255 BAG ON Complete
1300 OPERATIONS' COMING OUT OF FACILITY FOR LUNCH
1302 ENGINEERS ENTERING FACILITY TO SCOPE WORK FOR DRUMLIFT
1305 TURNING OVER OPERATIONS CENTER TO CLARISSA VELARDE.
1306 ~~B Velarde~~ 1-23-13 Shift turnover never performed BFordham was under instruction OCO position still required under CVelarde.

Continued ~~from~~ CV 1-23-13 on ~~pg~~ CV 1-23-13 next page - CVelarde

1-23-13 Continued from previous page - CKelands
1330 Vehicle access gates have been restored, transport vehicle has been unloaded, movement is complete.
1-23-13
1400 Operators continuing with operations. PPE check is sat.
1500 bagging off 90929, bagging on 90969
1507 Starting movement into 50-69.
1514 movement into 50-69 is complete
1520 bagon, bag off complete.
1524 Starting inside rounds.
1528 PPE check is sat
1538 Item 41 005, POD in Place, OK to continue with rounds.
1551 Starting outside rounds
1555 Completed inside rounds., PPE check is sat.
1605 Outside rounds complete.
1609 bagging off 90969, bagging on 90957.
1610 ~~1610~~ 1-23-13 Inside and outside rounds signed off by 305.
1625 bagon, bag off complete. PPE check is sat
1704 bagging off 90957
1738 bag off is complete.
1740 Starting movement out of 50-69
1755 Mode Change performed TMSO 69 and WCRRF-y and now in warm standby.
1810 ~~1756~~ 1-23-13 Completed movement out of 50-69.
1-23-13 1830 end of day WCRRF operations certain secure - CKelands

19

no further entries this page

PROJECT NAME 1/23/13 NOTEBOOK NO.

0600 Assumed the WCRR SOM position and reviewed the previous shift turnover. [signature]

0615 Attended the prejob briefing conducted by SOS. SOM discussed importance of SOS being aware of not allowing employees to exceed work hours per conduct of operations.

0645 SOM attending mandatory all hands meeting at the NSSB auditorium.

0955 SOM arrived back from meeting.

1000 Mode change complete. WCRR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.

1002 Call in with TA54 SOM. Status WCRR and DVS was statused as well.

1005 Notified by SOS that inventory control is having problems printing shortly labels. A request to WCATS will be submitted.

1158 Notified by OCO that RP-1 paused work inside due to a parent drum containing crystal like substance. Energy Solutions IH en route to investigate.

1205 Energy Solutions IH deemed crystal like substance to be frozen salts. Drum had been re-mediate at WCRR before and is from SP#72. IH deemed drum safe to work. Operations resumed.

1255 CSE S. West going into 50-69 to scope drum lift.

1745 Operations processed 4 parents resulting in 4 daughters and 1 POC.

1755 Mode change complete. WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.

1830 Securing the WCRR SOM position. [signature]

No further Entries this page

SIGNATURE [signature] DATE 1/23 20 13

READ AND UNDERSTOOD DATE 20

1-23-13 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted Shift brief EP-WCRR-RM-AOP-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 WCRRF In operations.

1005 Inventory Control notified that they are having Issues with label maker (Shortie's) Contacted waste help on Issue

1126 bagging on first drum of day label's will be printed to TA 46 Drum # 90586 PPE check sat.

1.23.13 1137 PPE Check

1158 RCT have paused work In facility Drum 90886 has Potential Chrystalization ES IH making Determination

1205 ok to Proceed Per IH

1225 bagging off and bagging on 90929

1300 Operators breaking for lunch

1400 Operators entering facility From lunch

1500 Bagging off and bagging on 1-23-13 GM ~~90966~~ 90969

1528 PPE Check

1604 Bagging on And bagging off. Bagged on 90957

1606 Inside And outside Rounds Reviewed ~~90957~~ GM 1.23.

1704 Bagging off last drum of day.

1755 mode Change Complete WCRRF In warm

1.23.13 1830 end of shift Securing SOS Position [illegible]

RLG no further entries on this Page

1-23-13 Continued from previous page - CKelands
1330 Vehicle access gates have been restored, transport vehicle has been unloaded, movement is complete.
1-23-13
1400 Operators continuing with operations. PPE check is sat.
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1610 ~~1607~~ 1-23-13 Inside and outside rounds signed off by 305.
1625 bagon, bag off complete. PPE check is sat
1704 bagging off 90957
1738 bag off is complete.
1740 Starting movement out of 50-69
1755 Mode Change performed TMSD 69 and WCRRF-y and now in warm standby.
1800 1756 1-23-13 Completed movement out of 50-69.
1-23-13 1830 end of day WCRRF operations certain secure - CKelands

11/14

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-RTR2-13-0071
Examination Date:	5/15/2013
Waste Container ID:	92678
Video/Audio Recorded Media Number:	LA-RTR2-13-0071 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.: 136.5 kg Tare Wt.: 33.4 kg Net Wt.: 103.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92678

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal hardware, metal lid
AM:	
OM:	Scrap lead
OI:	
C:	Fiberboard insert sleeve, fiberboard material
R:	
XPM:	Plastic bags, liner lid
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	7.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	77.1
Soils (S):	
Total WMP Weight:	103.1

CCP Radiography Data Sheet

Waste Container ID: 92678

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		5/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92678		Count Sequence Number:	15815	
Operator:	DCLTD231\Operator				
Assay Start:	5/20/2013 11:13:28 AM				
Description 1:	2LANDA1162				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	103.0 kg	Net:	103.0 kg	
Container:	Volume:	208.0 l	Full:	90.0 %	
Density:		0.550 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:	15815	Batch Number:	2LANDA1162
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92678	Analysis Date:	5/20/2013

Net Weight	103000.0 g			
Pu mass	1.53E+001	+-	3.16E+000	g
TRU Alpha Activity	6.52E+000	+-	2.89E+000	Ci
TRU Activity Concentration	6.33E+004	+-	2.80E+004	nCi/g
Pu-239 Equivalent Activity	6.56E+000	+-	2.89E+000	Ci
Pu-239 FGE	1.44E+001	+-	2.96E+000	g
Decay heat	2.15E-001	+-	9.65E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	8.03E-002	5.74E-005	9.20E-006	1.51E-006
PU238	1.40E-003	2.42E-002	5.01E-003	3.65E-005
PU239	1.43E+001	9.01E-001	1.86E-001	1.36E-003
PU240	9.16E-001	2.11E-001	4.36E-002	3.17E-004
AM241	1.55E+000	5.39E+000	2.88E+000	4.79E-002
PU241	1.79E-002	1.86E+000	3.85E-001	2.81E-003
PU242	3.06E-003	1.21E-005	2.51E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.25E-007
U233	<LLD	<LLD	0.00E+000	5.77E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.98E-006
U238	<LLD	<LLD	0.00E+000	1.35E-005
AM243	8.47E-004	1.71E-004	2.77E-005	8.71E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 5.23.13

ITR: _____ Date: 5-23-13

Automated Independent Technical Review

Count Sequence Number: 15815 Batch Number: 2LANDA1162
Counter ID: HENC #2
Container ID: 92678
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 5/20/2013

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

Expert Review by: Sheri Chambers Date: 5-22-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92678**

BDR Number: **LA13FG2060**

Sampling Date: **5/24/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	178.41	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	9.04	
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\130524c\
Data File : 92678.D
Acq On : 24 May 2013 9:38 am (#1); 24-May-13, 09:37:19 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 09:45:59 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.522	96	3946583	201.25	ppmv	-0.05
15) Chlorobenzene-d5	5.865	117	3375525	177.00	ppmv	-0.04
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	1268m	178.41	ppmv	
17) Toluene	4.827	92	108168	9.04	ppmv	97

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

S870338

Container Profile 761031

File Options Reports Help

S870338

761031	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

S870338

- S870338
  - LA00000068815
    - LA00000069224 - empty
    - LA00000069196
      - LASB50046
    - LA00000069209
      - LASB50010
    - W798325

Task History

Transfer Details

Transfer Amo...	Transfer Unit	Item	Measured We...	Measured We...
0.001	%			

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

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

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

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

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 ☐ 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 / _____ Z# 1-12-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 68815	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	451.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	163.0 12-18-14 ~~83.0~~ lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	614.2 12-18-14 ~~534.2~~ lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[17][D]	Drum lift hinge pin retaining clip replaced.	Initials Z# Date

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

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

ATTACHMENT 1
Page 3 of 4

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69209	69196		
10.1[4]	Daughter Drum Filter No.	L-12766	L-10076	N/A	
10.1[4]	Daughter Drum Bag Filter No.	JL-811	JL-805		
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	N/A	N/A		
	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			N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		A		A
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	Lead		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A		N/A
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments	See comments	N/A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	30%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic HEPA filter	Plastic HEPA filter		

ATTACHMENT 1
Page 4 of 4

VM 9-24-14

4.1[6][B] Parent Waste Container No.: 69209 68815

Comments: Lead, Liquid, nitrate salts, plastic, Kitty Litter

11.1[1] Performed By: Brandon Chavez / [signature] 120742 / 1-12-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Darrel L. Blain / [signature] 1218069 / 1-21-14 1451
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.: 0228366
Manufacture Date: 2013

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

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

Overpack filtered vent information:
Manufacturer:
Model No.:
Serial No.:
Manufacture Date: N/A

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: prepaped TA-54

8.1[1] Performed By: Brandon Chavez / [signature] 204742 / ~~[illegible]~~ 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Darrel L. Blain / [signature] 218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

Working Copy

Date: 1-12-14

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69224

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: Brandon Chavez / [signature] 204782 / 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: 019665
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 170.0 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 204782 / 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain [signature] 121809 / 1-21-14
Supervisor or designee (print) Signature Z # Date

UET Working Copy
1-11-14 cv

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69196

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.: 6CPVC1.5-25PVC
Serial No.: L-10676
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	8/5/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% CW ± 6% CCW	±3% CW ± 6% CCW

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

Performed By: Brian Cordova [signature] 1/11/14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUC Fil
Model No.: JL 019DS
Serial No.: JL-805
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.: 69196

Comments: n/c

5.[35] Performed By: Brian Cordova (Operator (print)) (Signature) 287544 (Z #) 1/11/14 (Date)

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

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69196

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

M&TE No.: 038376
Cal. Expiration Date: 8-2-14
Range: 16-80 ft-lb
Tolerance (+/-): ±3% or ± 60/0 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] 204742 / 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:	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: / / /
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.: 69496

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 1150 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: Braden Chavez / [signature] 2087421 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrell L. Blair / [signature] R1806981 1-21-14
Supervisor or designee (print) Signature Z # Date

UET: Working Copy
Date: 1-11-14 CV

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69209

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.: 6CPVC1.5-2SPVC
- Serial No.: L-12766
- Manufacture Date: 7/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036246
Cal. Expiration Date:	11/12/14	8/5/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±1% 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 Cardona (Operator (print)) [signature] (Signature) Z# Date 1/11/14

5.[23] Filtered vent information:
- Manufacturer: NUCFIL
- Model No.: 01905
- Serial No.: JL-811
- 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: 01906S

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.: 69709

Comments: N/C

5.[35] Performed By: Brian Cordova / [signature] 287544 1/21/14
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

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69209

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: Brandon Chavez / [signature] 12047 / 11-12-14
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:		
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.: 69209

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 532.2 lbs

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

Comments: n/c

6.[32] Performed By: Brandon Chavez / [signature] 2047821 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blair / [signature] 12180691 1-21-14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1-12-14

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68815

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): 451.2

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

Comments: N/C

8.1[1] Performed By: Brian Gallegos / [signature] / 267129 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] / 218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: Darrel L. Blain / [signature] / 218069 / 1-21-14 / 1453
SOS/SOM or designee (print) Signature Z # Date Time

UNVENTED

WDP TRU Waste Container Management Operations

UET

Document No: EP-DIV-AP-0107 RW 2.10.11
Attachment: 1
Revision: 1
Effective Date: 12/22/2009 ~~03~~ 72

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

12/4/13 HR

Production Control New 85gal drum used @ 412 Prep & new drum id assigned [signature] 6.10.12

Container ID: S870338\68815 Container Type: 85-GAL Gross Weight (lbs): [redacted]

Inner Seal #: 023952 Filter Prefix: LAVC Filter Serial #: 04712

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

TWSR Comments: [redacted] MST 12 A02032

Total PE-Ci Activity: 4.61E+00 Equivalent Combustible PE-Ci: 1.73E+00 AM-241 PE-Ci: No data

Total Fissile Gram Equivalents: 51.0 Total Surface Dose Rate (mrem/hr): 15

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 2/26/2007 Comment: Impenetrable Obj,

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☑ VE ☐ PID ☐ Split ☐ Repack

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

TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones / [signature] / 117434 / 9.27.10
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: RTR pre-screen indicates impenetrable object. Solid waste record indicates leached solids in form of nitrate salts. 13 items of nitrate salts, heaviest is 21kg (46 lbs). May require RWP for >100 and <1,000 mrem/hr @ 30-cm. Net weight of 13 items is 129kg (284 lbs).

Performed By: Michael Garcia / [signature] / 099143 / 10/27/10
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: USE Proper PPE And Kitty Litter Ratio
Gilbert Martinez [signature] 149235 12/6/13

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: [signature] / [signature] / 176905 / 11.8.10
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez [signature] 221452 12/6/13

Noncertified TRU Waste Drum Item Information

DrumID: 023952

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	30X16ES1		5.880	NITRATE SALTS	ROO	2.02	52	1/13	G468	
2	3DS18WS1		11.780	NITRATE SALTS	ROO	3.6	52	1/13	G468	
3	3DSL7ES1		13.410	NITRATE SALTS	ROO	3.98	52	1/13	G468	
4	3RR12WS1		9.620	NITRATE SALTS	ROO	3.43	52	1/13	G468	
5	3LR11WS1		7.110	NITRATE SALTS	ROO	8.67	52	1/13	G468	
6	3LR9ES1		12.940	NITRATE SALTS	ROO	0.72	52	1/13	G468	
7	3DS9ES1		3.070	NITRATE SALTS	ROO	0.56	52	1/13	G468	
8	3DS3WS1		5.780	NITRATE SALTS	ROO	0.76	52	1/13	G468	
9	3DS23WS1		15.290	NITRATE SALTS	ROO	12.06	52	1/13	G468	
10	3LR18ES1		20.890	NITRATE SALTS	ROO	3.92	52	1/13	G468	
11	3DS26WS1		9.790	NITRATE SALTS	ROO	3.33	52	1/13	G468	
12	3RR25ES1		8.720	NITRATE SALTS	ROO	9.77	52	1/13	G468	
13	3LR19WS1		4.860	NITRATE SALTS	ROO	1.12	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 204.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	54.14	129.14
Totals	54.14	129.14

ATTACHMENT 3
Page 1 of 3

TA-54 AREA G DRUM VENTING DATA SHEET

7.[2] Waste Container Unique Identifier: S870338

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	_____ %	0.059762 %
Methane	_____ ppm	0.000 ppm
VOC	_____ ppm	21.62 ppm
Filter Vent Unique Identifier No.	_____	AN-339
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: S870338

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: _____

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

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

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

7[13][A] (S) 55-gal waste containers to be transferred to WCRRF satisfy the following criteria (WCRRF SAC 5.10.2.3.4 a): ☑ SAT ☐ UNSAT ~~☑ N/A~~ (B) 12/6/13
- Hydrogen concentration less than or equal to 2.4% (24,000 ppm)
- VOC less than or equal to 5,250 ppm

Comments _____

N/A

7[11][M] Performed By Chris Vigil [signature] 163082 2-28-13
7[2] EP-DOP Supervisor designee (Print) Signature Date

7[13] Overhead space heaters ON and thermostat set ☐ SAT ☑ UNSAT

Reviewed By Chris Vigil [signature] 163082 2-28-13

ATTACHMENT 2
Page 1 of 2

TA-54 AREA G DRUM VENTING PROCESS DRUM RECEIPT DATA SHEET

5.[3] 6.[3] Waste Container Unique Identifier: S870338
PE-Ci Content: 4.614748604
PE-Ci Equivalent Combustible content: 4.060978771
FGE content 50.967711739
Weight (lb) 451.8045
Outermost Waste Container configuration:
☑ Vented 85-gal ☐ Unvented 85-gal ☐ Unvented 55-gal

5.[3] 6.[3] Performed By: Chris Vigil [signature] 163082 2-28-13
LTP-DDP Supervisor designee (Print) Signature Z # Date

NOTE *Satisfactory inspection is indicated by a SAT answer for each inspection criteria below.*

	TRU Waste Container Bottom (5.17] 6 [18])	TRU Waste Container (except bottom) (5 [9] 6 [6])
(S) No obvious container degradation? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) No evidence that the container is, or has been, pressurized? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) No significant rust or corrosion such that wall thinning, pin holes, or breaches are likely or the load bearing capacity is suspect? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) No split seams, tears, obvious holes, punctures (of any size), creases, broken welds, or cracks? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) Container properly closed? [AC 5.6.8(9c)]		☑ SAT ☐ UNSAT
(S) No dents, scrapes, or scratches that make the container's structural integrity questionable or prevent the top and bottom surfaces from being parallel? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) No discoloration, which would indicate leakage or other evidence of leakage of material from the container? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) No evidence of container bulging [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
(S) Container determined to be constructed of non-combustible material (i.e., exterior [AC 5.6.8(9c)(i)] of metal or concrete) [AC 5.6.8(9c)(i)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT

(S) Drum lid restraint inspected for degradation (e.g., no indication of cracked or broken parts, missing fasteners, loose or bowed parts, excessive wear or corrosion) [AC 5.6.4.5.1] ☐ SAT ☐ UNSAT ☑ N/A

ATTACHMENT 2
Page 2 of 2

5.[3] 6.[3] Waste Container Unique Identifier: S870338

6.[10] (S) Drum-lid restraint installed: (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

6.[16] (S) UNVENTED WASTE CONTAINER STORAGE AREA SRs are satisfied and current:

CS

- UNVENTED DRUMS are not stacked. (e.g., are in a singular planar array). (SR 4.6.1 and NCS-CSLA-12-016) ☐ SAT ☐ UNSAT ☑ N/A
- UNVENTED DRUMS containing MAR ≥ 300 PE-Ci are separated from each other by at least 10 ft. (SR 4.6.3) ☐ SAT ☐ UNSAT ☑ N/A
- Distance between the posted perimeter of the UNVENTED WASTE CONTAINER STORAGE AREA and areas where normal operations occur is at least 15 ft [AC 5.6.8(9a)] ☐ SAT ☐ UNSAT ☑ N/A
- Access restrictions for the UNVENTED WASTE CONTAINER STORAGE AREA are in place. (SR 4.6.2) ☐ SAT ☐ UNSAT ☑ N/A

Comments:

N/A

5.[19] 6.[28] Performed By: Chris Vigil [signature] 163082 2-28-13
LTP-DDP Supervisor designee (Print) Signature Z # Date

10.1[3] Reviewed By: Chris Vigil [signature] 163082 - 2-28-13
LTP-DDP Supervisor designee (print) Signature Z # Date

10.1[6] Acceptance criteria satisfied ☑ YES ☐ NO

10.1[8] Approved by: Chris Vigil [signature] 163082 2-28-13 1000
SOC SOM [illegible] Signature Z # Date Time

DVS Gas Determination Results Report

Date: 2/13/2028

Waste Container Number: S870338

Batch Number: DVS2130228

Filter Type Installed: 08DS

Number of Filters Installed:

Flammable Volatile Organic Compounds (VOCs)

Compound	Concentration (ppmV)	Upper Calibration Range (ppmV)	Exceeds Calibration (Y/N)	Calculated Value (If exceeds calibration)
Methanol	21.62	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	0	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	0	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

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

Total Flammable VOCs	21.62	**I.V.R. Intial and Date**	JAB 2/28/13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	0.059762	%	6.45	%	N
Methane	0.000	ppm	15990.00	ppm	N

Comments:

AN-339

Doug Eisele — DVS Operator Print Name

Signature

02-28-13 — Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100928c\
Data File : S870338.D
Acq On : 28 Sep 2010 2:09 pm (#1); 28-Sep-10, 14:08:31 (#2)
Operator : RG
Sample :
Misc : 55 GAL. LFL SAMPLE INSIDE 85 GAL. OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 14:21:59 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Aug 18 13:26:05 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.704	96	2797847	207.75	ppmv	0.06
15) Chlorobenzene-d5	6.026	117	2095310	180.75	ppmv	0.05
Target Compounds						Qvalue
1) Hydrogen	1.665	GC1	2783m	363.15	ppmv	

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

vocgas.m Tue Sep 28 14:22:23 2010

12-14
0553 Assuming WCRRF Operations center - Cleland
0615 Prejob being conducted by SOS.
0620 Starting inside rounds
0627 Starting outside rounds
0649 Outside rounds complete
0650 Item 63 OOS, POD in place okay to proceed per CSE documentation
0653 Inside rounds complete.
0708 Rounds signed off by SOS
0709 Mode change to operations inside TA50-69 and WCRRF yard.
0748 Bagging on 68759
0758 Bag on complete
0830 Bagging off 1 daughter, bagging on another
0855 Bag on, Bag off complete
0933 Starting to denest 4 drums, bagging off then will bag on 68816
1042 Denesting 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 FSR # 116309 for small forklift leak.
1207 Bag on, Bag off complete
1350 Bagging off, Bagging on 68760
1411 Bag on, Bag off complete
1448 Starting inside rounds
1455 Starting movement out of 50-69
1509 movement out of 50-69 complete.
1521 Item 63 is OOS, POD in place okay to proceed per CSE documentation.
1525 Starting movement into 50-69.
1536 inside rounds complete.
- Continued on next page - Cleland

1-12-14

1540 Starting outside rounds.
1543 movement into 50-69 complete.
1553 Outside rounds complete.
1600 Bagging off, Bagging on 68815
HG 1628 Bag on, Bag off complete
1805 Bagging off 2 daughters and will be installing port cover.
1806 IOD on guage A+B 9/12-14 PDI-009 is not a credited guage for confinement ventilation operation valves VSV-172 and VSV 175 are closed isolating the open lines from main duct work. Confinement ventilation is determined to be operable. pin 50m and on.
1832 Bag off complete.
1835 mode change to warm, TA50-69 and WCRRF yard
1-12-14 1900 End of day WCRRF operations Center secure Crelide

20 further entries this page

1/12/14 WCRR SOM continued.

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

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

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 505 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 +4.5 page RMG

PROJECT NAME WCRR SCS LEG Book NOTEBOOK NO.

1/17/14
0600 Assuming Position [illegible]
0615 Conducting Shift brief
0620 Starting Rounds
0630 Concluded shift brief
0708 Reviewed Inside Andoutside Rounds
0709 Mode Change Complete WCRRF In operations.
0748 Bagging on 68759
0738 Bag on Complete
0830 Bagging off 1 daughter Bagging on another
0855 Bag on/off complete
0933 starting to denest 4 drums bagging off/on 68816
1042 Denesting and bag on/off complete
1136 Operators notified Greek Forklift Leaking oil It was Moved out of yard Caution Tag was applied FSR will be Submitted.
1140 Bagging off 1 daughter bagging on Another
1207 Bag on/off Complete
1351 Bagging off/on 68760
1411 Bag on/off Complete
1448 Starting Rounds
1455 starting move out of 50-69
1505 Move out Complete
1525 Movement Into 50-69 started.
1543 Movement In Complete.
1600 Bagging off/on 68815
1628 Bag on/off Complete
1805 Starting bag off of Final drum
1833 bagg off Complete
1835 Mode Change Complete WCRRF In Warm
1/17/14 1845 End of Day SECURING SCS Position [illegible]

no further entries on this page

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69196
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.: 52.0 kg Tare Wt.: 33.4 kg Net Wt.: 18.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	40 %

CCP Radiography Data Sheet

Waste Container ID: 69196

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	
AM:	
OM:	
OI:	
C:	Tape roll
R:	Rubber gloves
XPM:	Plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	0.1
Rubber (R):	2.0
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	13.5
Soils (S):	
Total WMP Weight:	18.6

CCP Radiography Data Sheet

Waste Container ID: 69196

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:

Michael Simmons		1/17/2014
Print Name	Signature	Date

5870338

NDA 2000 Assay Report

Item Information

Item ID:	69196	Count Sequence Number:	24154
Operator:	D3PW2DK1\operator		
Assay Start:	1/18/2014 3:09:28 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: 18.6 kg	Net:	18.6 kg
Container:	Volume: 208.0 l	Full:	40.0 %
Density:	0.220 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

DS 1.23.14
~~36~~
35

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24154	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:	69196	Analysis Date:	1/18/2014

Net Weight	18600.0 g	
Pu mass	6.21E+000 +-	2.87E+000 g
TRU Alpha Activity	2.03E+000 +-	2.48E-001 Ci
TRU Activity Concentration	1.09E+005 +-	1.33E+004 nCi/g
Pu-239 Equivalent Activity	2.05E+000 +-	2.48E-001 Ci
Pu-239 FGE	5.86E+000 +-	2.86E+000 g
Decay heat	6.67E-002 +-	7.96E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	5.09E-009	7.02E-007	3.13E-007	0.00E+000
CS137	8.08E-009	7.02E-007	3.13E-007	2.96E-007
U233	<LLD	<LLD	0.00E+000	3.71E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	9.23E-007
NP237	3.17E-002	2.23E-005	2.32E-006	1.19E-006
PU238	5.66E-004	9.69E-003	4.91E-003	3.00E-004
U238	<LLD	<LLD	0.00E+000	6.30E-006
PU239	5.83E+000	3.61E-001	1.77E-001	1.12E-002
PU240	3.72E-001	8.45E-002	4.32E-002	2.62E-003
AM241	4.60E-001	1.58E+000	1.68E-001	6.91E-002
PU241	7.06E-003	7.27E-001	3.71E-001	2.25E-002
PU242	1.24E-003	4.91E-006	2.51E-006	0.00E+000
AM243	3.87E-003	7.74E-004	8.18E-005	4.51E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-22-14

ITR: _____ Date: 1-23-14

DS 1-23-14

~~37~~

36

Automated Independent Technical Review

Count Sequence Number: 24154 Batch Number: 1LANDA1893
Counter ID: MCS HENC #1
Container ID: 69196
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/18/2014

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
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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

01-23-14
JG
37

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

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

DS 1-23-14
~~39~~
38

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69196**

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 : 69196.D
Acq On : 31 Jan 2014 12:43 pm (#1); 31-Jan-14, 12:42:59 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 12:52:02 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	3540243	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.865	117	2680627	177.50	ppmv	0.00
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0008
Examination Date:	1/21/2014
Waste Container ID:	69209
Video/Audio Recorded Media Number:	LA-HERTR-14-0008 C&D
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.: 241.0 kg Tare Wt.: 33.4 kg Net Wt.: 207.6 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: 69209

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Scrap metal, metal hardware
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):	5.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	177.6
Soils (S):	
Total WMP Weight:	207.6

CCP Radiography Data Sheet

Waste Container ID: 69209

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:

Aaron Elliott	[signature]	1/21/2014
Print Name	Signature	Date

5870338

NDA 2000 Assay Report

Item Information

Item ID:	69209		Count Sequence Number:	16891	
Operator:	DCLTD231\Operator				
Assay Start:	1/25/2014 2:03:59 PM				
Description 1:	2LANDA1257				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	208.0 kg	Net:	208.0 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		1.050 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:	16891	Batch Number:	2LANDA1257
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69209	Analysis Date:	1/25/2014

Net Weight	208000.0 g		
Pu mass	9.86E+001	+- 3.57E+001	g
TRU Alpha Activity	4.24E+001	+- 8.76E+000	Ci
TRU Activity Concentration	2.04E+005	+- 4.21E+004	nCi/g
Pu-239 Equivalent Activity	4.26E+001	+- 8.76E+000	Ci
Pu-239 FGE	9.31E+001	+- 3.56E+001	g
Decay heat	1.39E+000	+- 2.90E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	4.64E-010	5.25E-007	1.79E-007	3.94E-007
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.96E-006
U233	<LLD	<LLD	0.00E+000	3.58E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.07E-005
NP237	4.85E-001	3.42E-004	8.03E-005	7.65E-006
PU238	9.00E-003	1.54E-001	6.31E-002	2.85E-003
U238	<LLD	<LLD	0.00E+000	5.82E-005
PU239	9.26E+001	5.74E+000	2.21E+000	1.06E-001
PU240	5.92E+000	1.34E+000	5.51E-001	2.49E-002
AM241	1.02E+001	3.52E+001	8.46E+000	5.99E-001
PU241	1.12E-001	1.15E+001	4.73E+000	2.14E-001
PU242	1.97E-002	7.80E-005	3.20E-005	0.00E+000
AM243	2.37E-002	4.73E-003	1.11E-003	5.00E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·29·14

ITR: _____ Date: 1·30·14

Automated Independent Technical Review

Count Sequence Number: 16891 Batch Number: 2LANDA1257
Counter ID: HENC #2
Container ID: 69209
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/25/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. MCA Deadtime greater than the upper limit of 50.0%. Spectrum Validity Check engine has suggested data review.	Ok MCA deadtime = 61.98%. No spectral distortion observed. 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: 1-29-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69209**

BDR Number: **LA14FG2010**

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

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140129C\
Data File : 69209.D
Acq On : 29 Jan 2014 1:17 pm (#1); 29-Jan-14, 13:17:07 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 13:27:21 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	3.548	96	3125371	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.851	117	2483913	177.50	ppmv	0.00
Target Compounds						Qvalue

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

S881608

S881608

Container Profile 770130

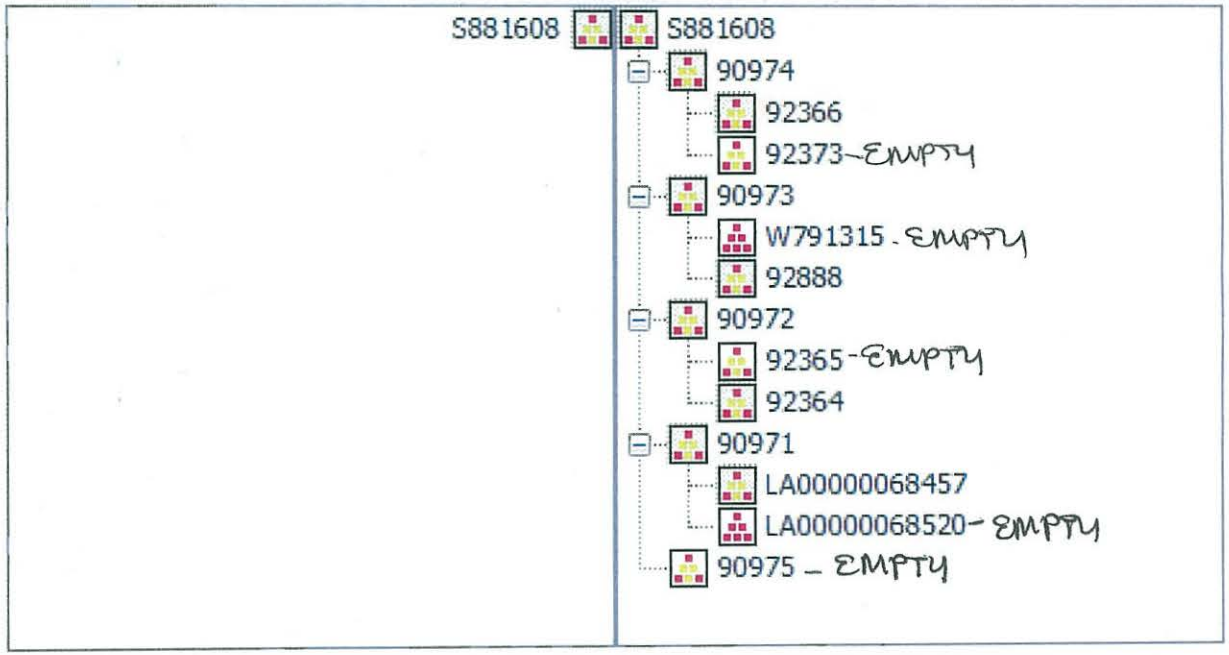
File Options Reports Help

S881608

770130	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



Task History

Transfer Details

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

Working Copy
Date: 2-23-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S881608

6.2[4] Date Processed: 2/23/12

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

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

4.1[6][B] Parent Waste Container RCRA Designations: 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] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY

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

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

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

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

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

Performed By: Michael Romero Michael Romero (Z22723) 2-23-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 424.2 lb

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

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S881608

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 544.2 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90971			
10.1[4]	Daughter Drum Filter No.	CL-1361		N/A	
10.1[4]	Daughter Drum Bag Filter No.	LL-217			
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	Nuclfil	Nuclfil	Nuclfil	
	Model No.	036-DA	036-DA	036-DA	
	Serial No.	LL-162	LL-163	LL-190	
	Date of Manufacture	12/11	12/11	12/11	
10.2[5]	POC ID No	90972	90973	90974	
10.2[7][B]/10.2[6]	POC Item Description	Salts plastic	salts plastic	salts plastic	
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	ML 182723	CM 240092	CM 240092	
10.2[14]	POC Assembly Gross Weight (lb)	382.6	395.8		
10.2[15]	POC Rad. Survey Results (mrem/hr)	450	230	250	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead Shielding			N/A
10.3[5][A]	Free Liquid Volume/Units	5-6 gals.			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.		N/A	N/A	
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	50%			
10.5[4]	Description Waste Added During Processing	Plastic			

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S881608

Comments: Lead Lined poly liner, Liquids, plastic, Salts

11.1[1] Performed By: Michael Romero Michael Romero 182723 2-23-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez [signature] 149935 2/27/12
SOS/SOM (print) Signature Z # Date/Time

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

tm 9-24-14

85-Gallon Overpack ID Number ~~90976~~ 90975

RECORD Drum Filter information: NUCF1-013			
Filter ID Number: IK-166			
Date of Manufacture: 9/10			
TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	038373
Cal Expiration Date		Cal Expiration Date	5-30-12
	N/A		±3% CW
Tolerance		Tolerance	±6% CCW
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
		Bung Torque Wrench	
		M&TE ID#	N/A
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

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
Don Pacheco	don Pacheco	DP	240012	02-23-12
Michael Romero	Michael Romero	MR	182723	2-23-12

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

Drum ID#: 90971

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 415090
Lot #: 022P644
Date of Manufacture: 11

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: NUCFIL
Model #: 036-DA-
Serial #: FL-217
Date of Manufacture: 12/11

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019 DS
Serial #: CL-1361
Date of Manufacture: 3/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	640695	M&TE ID #:	040691
Cal Expiration Date:	9-12-13	Cal Expiration Date:	8-2-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	+/-3% +/-6%	Tolerance:	+/-3% +/-6%

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Alonzo Guerrero Signature [signature] Z#: 038782

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 75.6
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: Timmy Romero Operator Sign: [signature] Z#: 234253 Date: TR 2-14-12 2-14-12

Verifier Print: Michael Romero Verifier Sign: [signature] Z#: 182723 Date: 2-23-12

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

DRUM ID#: 90971

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:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 203.6

✓ Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area

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

✓ Complete TWSR

Operator Print/Sign: Don Packwood Date: 02-23-12

Verifier Print/Sign: Michael Adam Date: 2-23-12

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S881608 Container Type: 85-GAL Gross Weight (lbs): 428
Inner Seal #: 023796 Filter Prefix: LAVC Filter Serial #: 04890
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST12 SEAL #A05592
Total PE-Ci Activity: 6.79E+00 Equivalent Combustible PE-Ci: 2.55E+00 AM-241 PE-Ci: No data
Total Fissile Gram Equivalents: 75.0 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/9/2007 Comment: None
Certified RTR Comment: None

Prohibited Items:	☐ Sealed > 4 Liters	☐ Liquid	☐ Pressurized Container	☐ Impenetrable Item	☐ Other
Security Determination:				☑ Green	☐ Yellow
Remediation Determination:		☐ VE	☐ PID	☐ Split	☑ Repack
Estimated 30-cm Dose Rate (mrem/hr):		☐ <100	☐ >100 and <1,000	☑ >1,000 and <10,000	☐ >10,000

TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones (Production Control (Print)) R.W. Jones (Signature) 117434 (Z Number) 9.27.10 (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: No comments on RTR pre-screen. Solid waste record indicates leached solids in form of nitrate salts. 8 items of salts, heaviest is 20kg (44 lbs). Net weight of 8 items is 127 Kg (279 lbs). May require RWP for >1,000 and <10,000 mrem/hr @ 30-cm.

Performed By: Michael Garcia (WDP Engineering (Print)) Michael J. Garcia (Signature) 099172 (Z Number) 10/27/10 (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: Julie Gallegos (TRU Remediation Operations (Print)) Julie Gallegos (Signature) 176905 (Z Number) 11-2-10 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 023796

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	7LR13WS1		19.800	NITRATE SALTS	R04	18.24	52	1/13	G468	
2	7LR20ES1		19.700	NITRATE SALTS	R04	12.27	52	1/13	G468	
3	8OX9WS1		20.100	NITRATE SALTS	R04	4.88	52	1/13	G468	
4	8EV11WS1		10.600	NITRATE SALTS	R04	6.34	52	1/13	G468	
5	8LR3ES1		14.500	NITRATE SALTS	R04	9.95	52	1/13	G468	
6	8LR16ES1		16.200	NITRATE SALTS	R04	7.24	52	1/13	G468	
7	8LR19ES1		10.200	NITRATE SALTS	R04	13.16	52	1/13	G468	
8	8LR1ES1		15.400	NITRATE SALTS	R04	7.62	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 194.

Material Type	SNM (grams)	Items Net Wt (kg)
52	79.7	126.50
Totals	79.7	126.50

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 9.24.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	237975	9-28-10

Container No. (7.[1]):	5881608	5822630	5902280
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]):		S881608	S822630	S902280
Hydrogen Reading (ppm) (7.[10]):		675.80 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 (Waste Handling Operator (print)) (Signature) 198450 (Z#) 9.28.10 (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 (Waste Handling Supervisor (print)) Kenny Romero (Signature) 117880 (Z#) 9.28.10 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100924c\
Data File : S881608.D
Acq On : 24 Sep 2010 9:38 am (#1); 24-Sep-10, 09:37:33 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM FROM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 24 09:55:27 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Aug 18 13:26:05 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.701	96	2921149	207.75	ppmv	0.06
15) Chlorobenzene-d5	6.023	117	2156115	180.75	ppmv	0.05
Target Compounds						Qvalue
1) Hydrogen	1.651	GC1	5179	675.80	ppmv	100

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

vocgas.m Fri Sep 24 09:55:45 2010

2-23-12 PROJECT NAME _____ NOTEBOOK NO. _____

0600 Assuming WCPPF Operations Center - Welande
0610 Starting outside rounds
0615 SOS conducting pre job briefing.
0621 Stack sampling monitoring completed.
0633 Item #60 is 005 per CSE documentation ok to proceed.
0635 Inside alarm 2-23-12 rounds completed.
0637 mizer alarm received for supply air attic low temperature. alarm acknowledged.
0650 mizer alarm supply air drop attic temperature low. alarm acknowledge.
0651 Contacted CSE Chris pilcher.
0659 mizer alarm acknowledged for supply air drop attic temperature low alarm.
0705 mizer alarm acknowledged for supply air drop attic temperature low alarm
0709 contacted CAS they have no knowledge of alarm.
0714 mizer alarm acknowledge for supply air drop on attic temp low
0721 mizer alarm acknowledge for supply air drop on attic temp low.
0728 mode change performed we are now in operations
0742 late entry 707 inside and outside rounds have been signed off
0751 Bagging on S881608
0812 Starting movement from 50-69 to transportainer
0818 FSR being initiated for temperature sensor.
0834 Operators using introductory port to introduce materials
0836 completed movement out of 50-69. now starting movement into 50-69.
0839 introducing thru introductory port complete.
0843 completed movement out of transportainer to 50-69.
0932 Operators inside notifying ops center of sparks coming from the drill attachment when it touches the bolt. SOS and SOM has been notified. Operations have been suspended.
0935 Operators ok to continue processing but cannot continue to use drill until non sparking ratchet is introduced.
1021 per OOD, engineering manager, and operations manager receiving permission to deactivating mizer alarm.
1026 Bagging off S881608 and 3 POC's, bagging on S821807.
1142 Operators inside notifying ops center of broken lead lined window on station 8. SOS notified

continued on next page - [illegible]

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

PROJECT NAME 2-23-12 NOTEBOOK NO.

0600 Assumed the WCRR SOM position. [signature]
0615 Attended pre-job briefing. Briefed all operators to Building Emergency Plan for WCRR.
0637 Operation Center received a MIZER alarm for supply air drop or attic temperature. SOS notified SOM. SOM requested for round sheets to verify any changes to ventilation system.
0645 SOS notified SOM not alarms are activated inside building 50-69. Alarm history on PLC is indicating no alarms. CSE C. Pilcher was notified. CSE investigating issue.
0715 CSE C. Pilcher is investigating issue. Per CSE and OM WCRR and 50-69 is OK to go into OPERATIONS mode.
0728 Mode change complete, WCRR and 50-69 from WARM to OPERATIONS. [signature] 2-23-12
0745 R. Axtell working under SOM instruction.
0745 Assumed WCRRF SOM position [signature]
0825 Notified by OM that SSW is submitting FSR to troubleshoot/repair MIZER alarm system.
0852 Late Entry 0728 - Cancelled outgoing shipment scheduled to TA-54 due to forecasted high winds and OSPAT priorities. OM approved [initials]
1021 Per OM, Engineering Manager and FOD, received permission to deactivate MIZER alarm system.
1043 Secured the SOM Under Instruction Watch (U/I) and turned over all duties back to SOM G. Fernandez. [signature]
1043 Assuming the WCRR SOM position. [signature]
1142 Notified by Operation Center that Ran operator inside hit the small inner window (lead) of the glovebox while trying to remove a large piece of lead. The small window obtained a hair line crack. RCTs evaluated and no action to change out window is required at this time. No emergency or abnormal procedure was entered due to window being the inner window and serving for shielding purposes only. OM notified.
1415 R. Axtell working under SOM instruction.
1415 Assumed WCRRF SOM position U/I [signature]
1455 Inventory Board was updated to reflect changes in site PE-Ci amounts. Refer to drum received on site 2/21/12 in which FGE values were changed.
1625 Notified by RP-1 personnel that CAM A6 was alarming in Bldg 69. 3 RCT's were inside bldg 69 when CAM alarmed and exited Bldg. Corrective Actions of EP-WCRR-RM-ARP-0407 followed.
1630 OM notified
1634 DOE notified.
1640 Mode change complete - both WCRR and Bldg 50-69 from Operations to Warm Standby.
1724 CAM A6 alarmed again while RP-1 was in process of investigating first alarm. Initial swipe results from Bldg 69 showed no contamination levels above limits.

continued on next page

SIGNATURE DATE
READ AND UNDERSTOOD DATE 20

256

PROJECT NAME WCCR SOS LOG BOOK NOTEBOOK NO.

2/23/12

0603 Reviewed SOS Turn over Assuming Position
0615 Conducted shift brief Reviewed Building Emergency Plan
0705 Shift Brief Concluded.
0706 ~~0637~~ Gm Acknowleged Mixer Alarm All Readings ok Late Entrie
0707 2-23-12 0637
0707 LATE Entrie Recieved Mixe Alarm and Acknowleged All readin OK 0655 Another Mixer Alarm 0659 Another at 0705
0721 Another Mixer Alarm.
0725 Another Mixer Alarm
1021 Per OM And CSE OK to disable Mixer Alarm System
1030 Late entrie Reviewed Inside And outside Rounds. 0725
1142 Inside operator notified that a little lead window broke had opperator's tape window And continue operations
1405 Recieved no char absorbent looking into Alternative
Gm 2-23-12 absorbent methods. SME will come by Tomorrow 9:00 Am
1547 1543 Reviewed Inside And outside Rounds
1625 Notified by Inside RCT's that Cam Alarm went of Inside Facility Cam A-6
1640 Made Change Complet WCCR Yard And SO-69 IN Warm
1725 Cam A-6 Alarming Again RCT's Going To Replace Cam Probable Faulty Cam
1800 All smears came back NDA.
1830 End of shift Securing SOS Position

4 2-27-12

No further entries on this page

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

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90971

6.2[4] Date Processed: 10-3-13

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: D069, D008, D007

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

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

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

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

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

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

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

Performed By: Melinda Stewart / Melinda Stewart 127268 10-3-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90971

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 207.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 23.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 230.2 lb

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

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A 4/7
Initials Z# Date

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: MS 10-413 SE 90971

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68457			
10.1[4]	Daughter Drum Filter No.	LM-251			
10.1[4]	Daughter Drum Bag Filter No.	L-6724			
10.1[4]	Daughter Drum Purchase Order No.	501578			
10.1[13][C]	WCG Fire Watch Stationed	☐ YES	☐ NO	☑ N/A	
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES	☐ NO	☑ N/A	
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
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.	NA			
10.3[10]	Remaining Waste Description	See Comment			
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%			
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.: 397

Comments: Kitty Litter, Nitrate Salts, Lead Shielding plastic

11.1[1] Performed By: [illegible] Rhonda Stewart [illegible]
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Jerez / [signature] 122452 / 10-4-13 0410
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.:	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.:	JL-1899
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 MICHAEL MONTOYA [signature] 191352 10/02/13
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: MICHAEL MONTOYA [signature] 191352 10/02/13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Jose Jerez [signature] R21452 10/4/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-3-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68520

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: Melinda Stewart / Melinda Stewart 127268 10-4-13
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): 163.8 lb

Comments: N/C

8.1[1] Performed By: Melinda Stewart / Melinda Stewart 127268 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez / Jose Perez 122422 10-4-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET 9/23/13 HS

5.[34][E] Drum ID No.: 68457

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 5PVC
Serial No.: L-6724
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	L00216	038369
Cal. Expiration Date:	12-18-13	12/18/19
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: IAN MARQUEZ [signature] 276708 9-23-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS
Serial No.: LM-251
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.: 68457

Comments: N/C

5.[35] Performed By: IAN MANOMEZ / [signature] 276208 9-25-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / [signature] 1221432 10-4-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68457

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 +7.6% 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) 127681 (Z #) 10-4-13 (Date)

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

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

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

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

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

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

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68457

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 284.6 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: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 1027268 (Z #) 10-4-13 (Date)

7.1[4] Reviewed By: Jose Jorez (Supervisor or designee (print)) (Signature) 224521 (Z #) 10-4-13 (Date)

SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: 90971 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 203.6
Total PE-Ci Activity: 1.70E+00 Equivalent Combustible PE-Ci: 6.37E-01
Total Fissile Gram Equivalents: 1.88E+01 Total Surface Dose Rate (mrem/hr): 48.6
EPA Code(s): D007; D008; D009

Waste Description: LA-MHD01.001 - COMBINED COMBUSTIBLE AND NON-COMBUSTIBLE WASTE

Remediation/Characterization Activities: Drum failed prescreen for fluoride waste (MHD01) and was re-assigned to nitrate salts (MN002) on 7/17/13. See attached email. Parent drum (SB81608) was part of a repack campaign @ WCRR for nitrate salt drums using Waste Lock 770®. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts to ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste label.

Potential Safety Risks: RTR BOR indicates homogenous solids, plastic bags/lids, and scrap lead.

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

IHS Representative

Potential IHS Safety Risks: May contain D007, D008 and D009, Use litter to counteract. Materials.

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

LTP Engineering

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

Engineering Comments: N/A

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Valerie Rhodes (Signature) | 112609 (Z#) | 9/10/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE and Kitty Litter Packs

Performed By: G Mik (TRU Operations (Print)) | [signature] (Signature) | 149375 (Z#) | 9/16/13 (Date)

Operations Manager or designee

Processing Determination: ☑ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use hexamesur gloves during processing. Use tools to manipulate waste.

Approved By: Jose Perez (OM or designee (Print)) | Jose Perez (Signature) | 122452 (Z#) | 9-18-13 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 023796

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	7LR13WS1		19.800	NITRATE SALTS	R04	18.24	52	1/13	G468	
2	7LR20ES1		19.700	NITRATE SALTS	R04	12.27	52	1/13	G468	
3	8OX9WS1		20.100	NITRATE SALTS	R04	4.88	52	1/13	G468	
4	8EV11WS1		10.600	NITRATE SALTS	R04	6.34	52	1/13	G468	
5	8LR3ES1		14.500	NITRATE SALTS	R04	9.95	52	1/13	G468	
6	8LR16ES1		16.200	NITRATE SALTS	R04	7.24	52	1/13	G468	
7	8LR19ES1		10.200	NITRATE SALTS	R04	13.16	52	1/13	G468	
8	8LR1ES1		15.400	NITRATE SALTS	R04	7.62	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 194.

Material Type	SNM (grams)	Items Net Wt (kg)
52	79.7	126.50
Totals	79.7	126.50

CCP Radiography Data Sheet

ction 1: General Information		
[X] RTR Examination	[ ] RTR Replicate Scan	[ ] RTR Independent Observation
Site ID:	LANL	
Batch Number:	LA-RTR2-12-0123	
Examination Date:	10/25/2012	
Waste Container ID:	90971	
Video/Audio Recorded Media Number:	LA-RTR2-12-0123	A&B
Procedure and Revision No.:	CCP-TP-053	Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-1887-12 NCR No.: N/A	

Section 2: Waste Container Data	
ntainer Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 92.5 kg Tare Wt.: 33.4 kg Net Wt.: 59.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of nfinement:	Appears to be LAYER NOT VERIFIED TJH 10-25-12
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 90971

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):	CAN NOT VERIFY RJH 11-25-14
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):	
Soils (S):	
Total WMP Weight:	0.0

CCP Radiography Data Sheet

Waste Container ID: 90971

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

CAN NOT VERIFY DUE TO NCR-LANL-1887-12

CAN NOT VERIFY DUE TO NCR-LANL-1887-12 10-25-12

Comments: NCR-LANL-1887-12

RTR Operator:

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

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 8/14/13

Container No. (5.[1])	90971					
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])	290.96 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	175.27 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	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)) , 238864 (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#) 8/15/13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130814c\
Data File : 90971.D
Acq On : 14 Aug 2013 12:46 pm
Operator : EL
Sample :
Misc : 55 GAL. LFL UNDER LID, UNOBST, 19DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 12:56:20 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	9755985	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7558250	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	49996m	175.27	ppmv	
4) Methanol	0.831	31	132987	257.97	ppmv	100
7) Acetone	1.360	58	55165	21.25	ppmv	93
12) Benzene	3.723	78	60774	1.52	ppmv	95
17) Toluene	5.577	92	311957	10.22	ppmv	96

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

VOCGAS.M Wed Aug 14 12:56:42 2013 UNIT12

10-3-13
1817 Assuming WCRR operations center. JCOleman
1828 Pre-job being conducted by SOS.
1840 Pre-job concluded.
1918 Operators entering 50-69 to resume operations on drum #S846037.
2046 Initiating a drum movement from transportainer to 50-69.
2055 Bagging off 1 daughter, bagging on another daughter.
2104 Bag off 1 on complete
2109 Drum movement complete.
2129 Bagging off 1 daughter, bagging on another daughter.
2140 Bag off 1 on complete.
2226 Operators currently in a pause, they have not found the dose sheet associated with their next drum to be bagged on (90971). Also, they are low on absorbent.
2238 The dose sheet has been located. Pause ended.
2241 Bagging off 1 daughter, bagging on 90971.
2316 Bag off 1 on complete.
2333 Operators out for lunch.
10-4-13 0031 Operators back from lunch.
0103 Bagging off last daughter of the day.
0105 Beginning outside rounds.
0119 Item #19 is unsat, okay to proceed, FSR in place.
0120 Bag off complete. Operators cleaning WCEI.
0122 Beginning inside rounds.
0140 Item #63 is OOS, okay to proceed per CSE documentation.
0145 ~~0140~~ JC 10-4-13 Inside rounds complete.
0153 Initiating a drum movement from 50-69 to a transportainer
0204 Operators report that the lights have gone out in the high bay and 50-69-103 (RCT area).
0206 Drum movement out of 50-69 complete. All inventory has been removed from 50-69.
0223 Mode changed to cold in 50-69 and warm in WCRRF yard.
Continued on next page - JCOleman

10-4-13 Continued from previous page - JCOleman
0230 Both rounds reviewed by SOS.
0245 Operators prepping 85's and 55's.
10-4-13 0530 End of day. OCO position secured. JCOleman
HH

No further entries this page

10/3/13 Night Shift

1815 Reviewed Shift turnover checklist, night shift operations watchbill was approved and posted @ 1814, assumed WCRR SOM position. [signature]

1820 Attending pre-job brief conducted by SOS, Safety Start message covered by ES-IH regarding head injuries and staying focused. Good practice noted w/ having day shift SOS, RP-1 lead and operators performing turnover @ pre-job brief. Discussed going to Cold @ end of shift for MSS activity starting Friday AM.

2104 Completed bag off of 1 daughter - continuing to process.

2109 Completed move in of 1 drum to 50-69 for processing.

2140 Completed bag off of 2nd daughter - continuing to process

2200 Notified by SOS that Kitty litter/absorbant inventory is almost gone - have enough to finish current drum bagged on but not for next drum. J. Jerez is trying to locate and obtain more. OM notified.

RRG 10/3/13 ~~2226~~

2314 ~~2241~~ RRG 10/3/13 All bag offs are complete for parent # 5846037 (3 daughters total). Bagged on drum # 90971 (SP-2) requiring reprocessing due to liquids. Additional absorbant was obtained to complete this drum but not a SP-72 drum.

2333 Operators breaking for lunch

10/4/13 0031 Resuming operations.

0120 Bag off complete of 1 daughter for 90971 - drum is finished.

0204 Operators reported loss of lighting in 50-69 in the High bay and RCT areas (Rooms 104 & 103)

0206 Completed movements of all drums from 50-69 to transportainers. 50-69 is deinventoried.

0218 Investigated lighting issue in 50-69 - lights in room 103 returned as energized - Room 104/High bay lights remain off.

0223 Completed Mode Change: WCRR Yard / 50-69 from Operations / Operations to Warm / Cold.

0245 SOS has directed operators to prep 55 and 85 gal drums in Arctic

10/4/13 0603 Relieved by J. Guadagnoli as SOM. [signature]

No further entries this page

RRG

10/3/13 WCRR SOS Log Book
1821 Assuming SOS position. CA
1824 Starting Pre-Job with turnover with day shift. Also discussed good housekeeping.
1845 Pre-Job complete.
2000 Relieved by Jose Jerez. CA 10/3/13
2000 Assuming SOS position. Turned over with Clayton Mullins. Jose Jerez
2046 Starting drum movement from Transportainer to 50-69
2055 Bagging off 1 daughter, Bagging on another daughter and continuing to process
2104 Bag off complete
2109 Drum movement complete
2129 Bagging off one daughter bagging on another and continuing to process
2140 Bag off complete
2226 Operators on pause due to next parent to process not having dose sheet with it 90971, they are also low on kitty litter for processing SR72 waste stream. Per procedure waste needs a 3 to 1 mixture
2258 Pause ended, operators continuing to process.
2241 Bagging off third daughter and will be bagging on Parent 90971
2316 Bag off complete.
2333 Operators breaking for lunch
0030 Operators returning from lunch will continue to process remainder of Parent 90971, they will not be bagging on another Parent due to not having enough kitty litter to continue processing.
0103 Bagging off final daughter for the shift.
0120 Bag off complete.
0223 Mode change WCRR yard is in WARM 50-69 is in COLD all TRU waste has been moved out of 50-69.
0230 Rounds complete and signed
0530 Securing SOS position for the day. Jose Jerez

No further entries on this page.

S881608

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0117
Examination Date:	10/22/2013
Waste Container ID:	68457
Video/Audio Recorded Media Number:	LA-RTR2-13-0117 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.: 129.5 kg Tare Wt.: 33.4 kg Net Wt.: 96.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 68457

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):	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):	86.1
Soils (S):	
Total WMP Weight:	96.1

CCP Radiography Data Sheet

Waste Container ID: 68457

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		10/22/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68457		Count Sequence Number:	23752	
Operator:	D3PW2DK1\operator				
Assay Start:	10/30/2013 10:17:33 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:	96.1	kg	Net:	96.1 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:	23752	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:	68457	Analysis Date:	10/30/2013

Net Weight	96100.0 g		
Pu mass	6.36E+001 +-	2.27E+001	g
TRU Alpha Activity	9.79E+000 +-	1.72E+000	Ci
TRU Activity Concentration	1.02E+005 +-	1.79E+004	nCi/g
Pu-239 Equivalent Activity	9.93E+000 +-	1.72E+000	Ci
Pu-239 FGE	6.00E+001 +-	2.26E+001	g
Decay heat	3.16E-001 +-	5.45E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.21E-008	1.67E-006	9.61E-007	0.00E+000
CS137	1.92E-008	1.67E-006	9.61E-007	7.26E-007
U233	<LLD	<LLD	0.00E+000	6.67E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.78E-006
NP237	8.76E-002	6.17E-005	1.11E-005	2.93E-006
PU238	5.81E-003	9.94E-002	3.98E-002	8.42E-004
U238	<LLD	<LLD	0.00E+000	1.64E-005
PU239	5.97E+001	3.70E+000	1.40E+000	3.13E-002
PU240	3.81E+000	8.66E-001	3.50E-001	7.34E-003
AM241	1.50E+000	5.13E+000	9.23E-001	1.28E-001
PU241	7.30E-002	7.52E+000	3.04E+000	6.37E-002
PU242	1.27E-002	5.03E-005	2.04E-005	0.00E+000
AM243	2.35E-003	4.71E-004	8.53E-005	8.86E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23752 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68457
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.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain 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: **68457**

BDR Number: **LA13FG2110**

Sampling Date: **10/31/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	129.67	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131031c\
Data File : 68457.D
Acq On : 31 Oct 2013 2:16 pm (#1); 31-Oct-13, 14:16:15 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 14:24:44 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	3.575	96	5499500	205.75	ppmv	0.06
15) Chlorobenzene-d5	5.884	117	4177077	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.610	GC1	975m	129.67	ppmv	

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

Working Copy
Date: 11-13-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90972

6.2[4] Date Processed: 11/13/12

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

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

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

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

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

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

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

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

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

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

Performed By: JOE QUINTANA Joe Q 239987 11/13/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90972

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 383.1 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) 383.1 lb

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

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

EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90972

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92364			
10.1[4]	Daughter Drum Filter No.	SL1303			
10.1[4]	Daughter Drum Bag Filter No.	L4350			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No.				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%			
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.: 90972

Comments: METAL LID, PLASTIC, SALTS, KITTY LITTER, CARDBOARD LINER

11.1[1] Performed By: JOE QUINTANA, Joe Q 239987, 11/15/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: G [illegible], [illegible] 149235, 11/9/12 1245
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-8-12 gc

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: HB3954
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: IL-259
Manufacture Date: 9/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-12 13	6-11-13
Tolerance:	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

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

Performed By: Steven Mandragon / [signature] 11/8/12
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: NA

8.1[1] Performed By: Steven Mandragon / [signature] 11/8/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] 11933 11-19-12
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 11-13-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92365

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 040329
- Cal. Expiration Date: 3-15-2013
- Range in ft-lb: 16-80
- Tolerance: ±3% cw & ±6% ccw

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

Performed By: JOE QUINTANA / Joe Q 239987 11/19/12
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 326.0 lb

Comments: n/c

8.1[1] Performed By: JOE QUINTANA / Joe Q 239987 11/13/12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] 149235 11-19-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92364

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 416184
Lot #: 0229127
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CMR-1.5-2.0SPVC
Serial #: L-4350
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 #: 01405
Serial #: FL-1005
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	4-16-13	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±4% cw ±6% ccw

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

☐ Yes ☐ No

Print Name: Eddie Rios Signature: Eddie Rios Z#: 18722

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 77.1
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Eddie Rios Operator Sign: Eddie Rios Z#: 18722 Date: 11-8-12

Verifier Print: JOE QUINTANA Verifier Sign: Joe Q Z#: 234487 Date: 11/8/12

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

DRUM ID#: 92364

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3-Nov-2013

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

--- Tolerance ± 3%/cw ± 6%/ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 262.2

Scale ID#: 09065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: Joe Quintana Joe Q Date 11/13/12

Verifier Print/Sign: Brandon Chavez Date: 11-13-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90972 Container Type: POC Gross Weight (lbs): 383

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-376; EL-99

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

TWSR Comments: PARENT #S881606 WTS-12STD-802

Total PE-Ci Activity: 1.70E+00 Equivalent Combustible PE-Ci: 6.37E-01 AM-241 PE-Ci: 1.34E-01

Total Fissile Gram Equivalents: 18.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VE 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: TB0 Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Loc 770 from previous repack campaign. A minimum of 1.3 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey Signature Susan B Ramsey Z Number Date 9/11/12
Production Control (Print)

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 73lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr.

Performed By: Valerie Rhodes Valerie Rhodes Z Number 10/2/12
WDP Engineering (Print) Signature Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use tools to remote handle waste. Use Hexamaxx gloves when processing waste. Do not push or press on waste

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Jose Perez Jose Perez 221452 10-4-12
TRU Remediation Operations (Print) Signature Z Number Date

LH 2# 249750 10/9/12
WTS Reviewed. Juliana Arellano ECP contains lead, Hg + Chromium 10-3-12

Noncertified TRU Waste Drum Item Information

DrumID: 023796

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	WT	Auth (Pu/In)	Comments
1	7LR12WS1		19.800	NITRATE SALTS	R04	18.24	52	1/13	G468
2	7LR20ES1		19.700	NITRATE SALTS	R04	12.27	52	1/13	G468
3	8GX9WS1		20.100	NITRATE SALTS	R04	4.88	52	1/13	G468
4	8EV11WS1		10.600	NITRATE SALTS	R04	6.34	52	1/13	G468
5	8LR1ES1		14.500	NITRATE SALTS	R04	9.95	52	1/13	G468
6	8LR16ES1		16.200	NITRATE SALTS	R04	7.24	52	1/13	G468
7	8LR19ES1		10.200	NITRATE SALTS	R04	13.16	52	1/13	G468
8	8LR1ES1		13.400	NITRATE SALTS	R04	7.62	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 194.

Material Type	SNM (grams)	Items Net Wt (kg)
52	79.7	126.50
Totals	79.7	126.50

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])	90972					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	poc					
Filtered Vent Type (5.[1])	IgDS					
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])	161.74 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 / 237975
CCP (Print) Z#

Reviewed By: Nathan Wales / 288866
CCP (Print) Z#

Comments: N/A

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

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

6.1[3] Performed By: Susan S. Ramsey / Susan S. Ramsey / 100681 / 10/1/12
Waste Handling Operator (print) Signature Z# Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90972.D
Acq On : 28 Sep 2012 3:57 pm
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 16:05:50 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.256	96	2460318	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2186494	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.315	GC1	39964m	161.74	ppm	

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

Vocgas.m Fri Sep 28 16:05:57 2012

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PROJECT NAME _____ NOTEBOOK NO. _____

11-13-12

0600 Assuming WCRRF operations center Ckelande
0615 Pre job being conducted by SOS
0620 Started inside rounds completed outside rounds.
0655 Inside rounds complete
0718 Inside and outside rounds signed off by SOS.
0739 Mode change performed TAS0-69 and WCRRF yard now in operations.
0739 Fork lift inspections complete
0805 Permission granted to start movement into 50-69
0847 bagging on 90884
0900 Completed movement into 50-69, bag on complete.
0913 Permission granted to lower vehicle access gate for loading of transport vehicle.
0934 bagging off 90884, bagging on 90941
0958 bag on, bag off complete
1024 Vehicle access gates have been restored. loading of transport vehicle is complete.
1037 bagging off 90941, bagging on 90890
1052 starting movement into 50-69.
1101 movement into 50-69 is complete.
1105 bag on, bag off complete.
1152 bagging off 90890, bagging on. 90897
1212 bag off, bag on complete.
1319 bagging off 90897 and bagging on 90972
1346 bag off, bag on complete
1431 bagging off 90972, bagging on 90974
1454 bag on, bag off complete.
1455 starting inside rounds.
1326 Completed inside rounds
1328 Starting movement out of 50-69.
1552 bagging off 90974.
1556 Completed movement out of 50-69.
1600 Starting outside rounds
1615 Completed outside rounds.
1616 bag off is complete.
1618 Rounds have been signed off by SOS.
1620 mode change performed TAS0-69 and WCRRF yard now in warm standby.
1640 end of day WCRRF operations center secure Ckelande

NA

no further entries this page

SIGNATURE _____ DATE _____ 20 _____

READ AND UNDERSTOOD _____ DATE _____ 20 _____

307 | PROJECT NAME 11/13/12 | NOTEBOOK NO.

0600 Assumed WCRR SOM position
0615 Attended pre-job brief conducted by SOS. Discussed winter weather early closure / late opening plans for safety topic, use of hand rails, weekend work including contamination event.
0702 CSE completed sign-off of work packages from weekend maintenance.
0739 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Cold to Operations / Operations.
1100 Briefed to RWP for entering radiation areas.
1200 Conducted call in for solution package processing @ WCRR and team call in regarding production @ WCRR and DVS.
1400 Attended meeting for DVS Filter change out w/ RP-1 and DDP Management. Discussed possibility of utilizing Bldg 412 instead of setting up temporary enclosure in one of the domes. PM will give guidance.
1510 (Late Entry 1310) Performed walkdown of containers in TR4 storage transportainers w/ Tech 39.
1620 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.
1745 Secured SOM position.

No further entries this day

SIGNATURE _____ DATE 11/13 20 12
READ AND UNDERSTOOD _____ DATE _____ 20 _____

11-13-12 WCRR SOS Log Book

0600 Assuming SOS positions for the day

0615 Pre-Job brief Started. Discussed Changes to Snow and increment weather procedure Delayed Starts and early dismissal. 1 Shipment out eight drums remaining to process prior to removing inventory from the yard and 30-69 to put in Cold.

0640 Pre-Job concluded

0655 Signed off on outside rounds.

0718 Signed off on inside rounds

0739 Made Change to Operations in Yard and Building 30-69.

1618 ~~Mode Change Complet WCRRF In~~ Reviewed Inside and outside Rounds.

1620 Mode Change Complete WCRRF in warm standby.

11-13-12 1630 end of shift Securing SOS Position

No further entries on this Page

5881608

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0011
Examination Date:	1/24/2013
Waste Container ID:	92364
Video/Audio Recorded Media Number:	LA-RTR2-13-0011 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 119.0 kg Tare Wt.: 33.4 kg Net Wt.: 85.6 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: 92364

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware

AM:

OM:

OI:

C: Tape roll, fiberboard sleeve

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):	12.6
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	6.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	62.0
Soils (S):	
Total WMP Weight:	85.6

CCP Radiography Data Sheet

Waste Container ID: 92364

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

Comments: N/A

RTR Operator:

Benito Maestas		1/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92364		Count Sequence Number:	21905	
Operator:	D3PW2DK1\operator				
Assay Start:	1/25/2013 12:46:57 PM				
Description 1:	1LANDA1701				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, Not Precision				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	85.6 kg	Net:	85.6 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		0.430 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	21905	Batch Number:	1LANDA1701
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:	92364	Analysis Date:	1/25/2013

Net Weight	85600.0 g		
Pu mass	2.87E+001 +-	5.25E+000	g
TRU Alpha Activity	5.10E+000 +-	1.60E+000	Ci
TRU Activity Concentration	5.95E+004 +-	1.87E+004	nCi/g
Pu-239 Equivalent Activity	5.16E+000 +-	1.60E+000	Ci
Pu-239 FGE	2.71E+001 +-	4.93E+000	g
Decay heat	1.65E-001 +-	5.33E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.75E-002	4.10E-005	5.78E-006	2.14E-006
PU238	2.64E-003	4.56E-002	8.35E-003	3.40E-005
PU239	2.69E+001	1.69E+000	3.10E-001	1.26E-003
PU240	1.72E+000	3.96E-001	7.24E-002	2.95E-004
AM241	8.53E-001	2.96E+000	1.57E+000	4.96E-002
PU241	3.42E-002	3.55E+000	6.50E-001	2.64E-003
PU242	5.75E-003	2.28E-005	4.17E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.32E-007
U233	<LLD	<LLD	0.00E+000	4.86E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.38E-006
U238	<LLD	<LLD	0.00E+000	1.22E-005
AM243	1.85E-003	3.73E-004	5.33E-005	6.55E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-30-13

ITR: _____ Date: 2/1/13

Automated Independent Technical Review

Count Sequence Number: 21905 Batch Number: 1LANDA1701
Counter ID: MCS HENC #1
Container ID: 92364
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/25/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	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: Sherri Chambers Date: 1-29-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92364**

BDR Number: **LA13FG8008**

Sampling Date: **2/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	139.36	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130201c\
Data File : 92364.D
Acq On : 1 Feb 2013 1:32 pm (#1); 1 Feb 2013 1:31 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 13:40:02 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	2218359	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2052002	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.307	GC1	34434m	139.36 ppm	

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

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90973

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

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

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

4.1[6][B] Parent Waste Container RCRA Designations: D007,008,009

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

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

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

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

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

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

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

Performed By: Fredrico Arbeleta / [signature] 228326 / 2-9-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90973
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	400.0 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)	400.0 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

N/A

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90973
JM 9-24-14

		Daughter Drums			
10.1[4]/10.2[4]	Daughter Drum No.	92888			
10.1[4]	Daughter Drum Filter No.	KL-402			
10.1[4]	Daughter Drum Bag Filter No.	L-6202			
10.1[4]	Daughter Drum Purchase Order No.	501011			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub out Bags, Kitty-litter			

N/A
N/A

ATTACHMENT 1
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4.1[6][B] Parent Waste Container No.: 90973

Comments: Salts, Room trash, plastics, P.O.C. lid, cardboard, KITTY LITTER, KNIVES

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

11.1[7] Reviewed By: [signature] / [signature] 149235 / 2.10.15 0811
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2-8-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 2011

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 06-1824
Manufacture Date: 10-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	± 4% cw ± 6% ccw	± 3% cw ± 6% ccw

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

Performed By: Brandon Chavez / [signature] [illegible] 12-8-13
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] [illegible] 12-8-13
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: GMH / [signature] 142251 2-10-13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 72887

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 038367
- Cal. Expiration Date: 3-16-13
- Range in ft-lb: 10-80
- Tolerance: +/- 3% CW +/- 6% CCW

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

Performed By: Frederico Arboleda / [signature] 228526 / 2-9-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 148.8 lb

Comments: NO comments

8.1[1] Performed By: Frederico Arboleda / [signature] 228526 / 2-9-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: GMh / [signature] 149235 2-10-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2.7.13

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

Drum ID#: 92888

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 #: 50101
Lot #: 0233370
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: Bop
Model #: 6CPVC-1.5-2SPVC
Serial #: L-6202
Date of Manufacture: 11-12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 019DS
Serial #: KL-402
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% CW ±6% CCW	Tolerance:	±3% CW ±6% CCW

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

[x] Yes [ ] No

Print Name: Justin Copet Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs): 70.2 lbs
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Justin Copet Operator Sign: [signature] Z#: 266436 Date: 2-7-13

Verifier Print: Nicole Archuleta Verifier Sign: [signature] Z#: 190254 Date: 2-9-13

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

DRUM ID#: 92988

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038367

Cal expiration date: 3-16-13

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

— Tolerance +/- 3% CW +/- 10% 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) 280.4

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: [signature] Date 2-9-13

Verifier Print/Sign: [signature] Date: 2-9-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90973 Container Type: POC Gross Weight (lbs): 396
Inner Seal #: None Filter Prefix: None Filter Serial #: EL-332; EL-381
WK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S881608 WTS-12STD-814
Total PE-Ci Activity: 1.70E+00 Equivalent Combustible PE-Ci: 6.37E-01 AM-241 PE-Ci: 1.38E-01
Total Fissile Gram Equivalents: 18.8 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 LK 10/2/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other
Security Determination: ✓ Green Yellow
Remediation Determination: VE PID Split ✓ Repack
Estimated 30-cm Dose Rate (mrem/hr): <100 ✓ >100 and <1,000 >1,000 and <10,000 >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009
Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum 6:2 volume
of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts
Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan S. Ramsey Z Number: 100681 Date: 9/11/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes ✗ No Unknown
Processing Determination: ✗ Accept Reject
WDP Engineering Comments: Nitrate Salts – POC
Net Wt: 86lb 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: 112607 Date: 10/4/12

TRU Remediation Operations

✓ Waste Container Information Evaluated Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns: Use proper PPE when handling waste in the glove box. Do not push or press on waste.
Processing Determination: ✓ Accept Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure
Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: Jose Jerez Z Number: 122452 Date: 10-4-12
LK Z# 249750 10/9/12
HS Review Jose Jerez Small Quantity CSP Contains Lead, Hg & Chromium
10-3-12

Noncertified TRU Waste Drum Item Information

DrumID: 023796

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	7LR13WS1		19.800	NITRATE SALTS	R04	18.24	52	1/13	G468	
2	7LR20ES1		19.700	NITRATE SALTS	R04	12.27	52	1/13	G468	
3	8OX9WS1		20.100	NITRATE SALTS	R04	4.88	52	1/13	G468	
4	8EV11WS1		10.600	NITRATE SALTS	R04	6.34	52	1/13	G468	
5	8LR3ES1		14.500	NITRATE SALTS	R04	9.95	52	1/13	G468	
6	8LR16ES1		16.200	NITRATE SALTS	R04	7.24	52	1/13	G468	
7	8LR19ES1		10.200	NITRATE SALTS	R04	13.16	52	1/13	G468	
8	8LR1ES1		15.400	NITRATE SALTS	R04	7.62	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 194.

Material Type	SNM (grams)	Items Net Wt (kg)
52	79.7	126.50
Totals	79.7	126.50

ATTACHMENT 1
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TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9/28/12 (73 10/2/12)

Container No. (5.[1])	90937					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	471.54 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), John S. Ramsey (Signature), 100681 (Z#), 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90973.D
Acq On : 28 Sep 2012 11:11 am (#1); 28 Sep 2012 11:10 am (#2
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 11:18:48 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	2519940	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2207023	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.307	GC1	116509m	471.54	ppm	

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

Vocgas.m Fri Sep 28 11:18:57 2012

9/13

600 Assuming operations center - B. Fordham

615 PRE-JOB BRIEFING BEING CONDUCTED BY SOS

633 STARTING INSIDE ROUNDS AT 0633

644 STARTING OUTSIDE ROUNDS AT 0644

656 ITEM #61 on INSIDE ROUNDS IS OOS, POD IS inplace, ok to proceed

1657 ITEM #3 on outside ROUNDS IS UNSAT, FSR inplace, ok to proceed

1658 INSIDE ROUNDS complete

0711 completed outisid Rounds at 0711

0713 ROUNDS HAVE BEEN SIGNED OFF BY SOS

0837 Computer issues, DATABASE IS Down, unable to track TSR's

0840 MANUALLY VERIFIED TSR TRACKING, UPDATED THE STATUS BOARD

0845 MODE CHANGE TO operations

0851 BAGGED on S823165 PPE CHECK SAT

0949 BAGGING OFF AND BAGGING on 90973

1024 BAGG ON complete

1032 Pausing work Due to PIN FALLING OFF OF THE DRUM Lift CREW HAS placed everything in A SAFE configuration.

1033 Continuing work PER SOM, to finish processing current DRUM on the lift and the glove box, after processing this DRUM facility will go to cold so maintnance can fix drum lift, PPE CHECK SAT

1036 Ops MANAGER notified, with his concurance "imediate operability Determination" performed, statusing the DRUMlift as operable. Do not need to go to cold CAN be performed in warm

1109 MOVEMENT OF 8 drum out of facility to transportainers

1127 movement out of facility complete

1147 DRUM # 90973 Being BAGGED OFF AND ANOTHER DRUM is not being bagged on, mechanics are coming to replace pins on drum lift, PPE CHECK SAT.

1208 Bagoff complete, facility is in a safe configuration.

1245 FACILITY IS IN WARM STANDBY MODE, MODE CHANGE PERFORMED IN ORDED TO FIX THE DRUMLIFT, MECHANICS ARE ON Sight

1320 MECHANIC ENTERING THE FACILITY TO REPAIR THE CLIPS ON THE DRUM LIFT

1353 Operators are conducting drum lift inspection as part of post inspections upon mechanics fixing the DRUM lift

continued on next page B. FORDHAM

2-9-13 continued from Previous Page B. FORDHAM

1400 Drumlift inspection complete
1412 Drumlift Inspection Signed off by CSE
1429 MODE CHANGE TO operations mode
1434 Bagging on 91002
1447 BAG on complete PPE CHECK SAT
1455 STARTED INSIDE ROUNDS
1512 Item #61 on Inside Rounds is 003, POD inplace, ok to pro
1518 completed inside Rounds
1527 BAGGING OFF AND BAGGING on Drum #91018
1553 Bag on Complete PPE CHECK IS SAT
1600 STARTED outside rounds
1606 Item #3 on the outside Rounds is unsat, FSR inplace
ok to proceed.
1620 outside Rounds complete
1621 Bagging on and bag off, bagged on Drum # 96997
1623 SOS signed off on afternoon rounds
1645 BAG ON complete PPE CHECK IS SAT
1740 BAGGING OFF LAST DRUM PPE CHECK IS SAT
1752 BAG OFF complete, facility is in a safe configurati
1800 Mode change to warm standby
2-9-13 1830 END OF DAY WCRRF IS SECURE B. Fordham

1/2 119

NO MORE ENTRIES THIS PAGE

72 | PROJECT NAME 2/9/13 | NOTEBOOK NO.

0600 Assumed WCRR SOM position after reviewing SOM turnover checklist. L
0615 Attended pre-job brief conducted by SOS Safety topic was use of AED's, Discussed ensuring all paperwork is completed - specifically drum prep paperwork.
0715 Notified by OCO and SOS that data base is down - both FRI and Oracle - prevents MAR tracking and printing labels. Notified OM.
0720 Identified scheduled RCRA inspector scheduled for day off. Area G backup is not available, Contacted off-shift RCRA inspector and will come in to work during AM.
0830 Verified that Oracle portion of data base is on-line. Able to print labels => processing of inventory already in building can take place.
0840 Verified from status board and round sheets completed that all SR's / ISI's are current for LCO/TSR tracking requirements.
0845 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations / Operations.
1015 All functions of data base are working. SOS having personnel prepare for inventory movement out of Bldg 50-69.
1025 RCRA inspections completed, SAT.
1032 Notified by OCO that drum lift pin clip had fallen off from the belly band. Drum had just been bagged on when identified.
1036 Notified OM of drum lift issue - with his concurrence performed an immediate operability determination (IOD) and statused the drum lift as operable, Notifying CSE and MSS of problem. Will process drum currently on WCO to get inventory into safe condition. SOS notifying operators to perform frequent inspections of belly bar pins.
1130 MSS will have a mechanic here @ 1300. CSE on call contacted and will be available to sign off PMT, OM updated to status.
1245 Completed Mode change: WCRR ~~Operations~~ Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.
1300 Released WO # 4541327-01 TA-50-69 TSTR Drum Lift - to reinstall pin clips.
1317 MSS and operations going into facility to repair/inspect drum lift.
1425 Drum Lift work completed and signed off by CSE.
1429 Completed Mode change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations
1800 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm
1830 Secured SOM position. L

SIGNATURE L READ AND UNDERSTOOD
DATE 2/9 20 13
DATE 20

2-20-13

2-9-13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [signature]
0615 Conducted shift brief.
0635 Concluded shift brief.
0723 Reviewed Inside and outside rounds
0745 having Issues with Database It is Down.
0840 manually verified TSR Tracking. Updated status Board
0845 mode chang complete WCRRF In operations
0851 Bagged on first drum of day 5823165 PPE Checksat
0949 Bagging off and bagging on 90973 PPE Checksat
1032 Notified by Inside Personal That Pin on lift Popped off
1033 Per Som Finish processing drum on After processing drum will go to warm to perform repairs.
1036 Per om drum lift declared operable.
1147 Drum 90973 will be bagged off And will not bag nothing on to do maintanance on lift, [illegible] PPE Check sat
1238 Maintanance Crew Arived to replace clip on pin.
1515 Maintanance entering Facility to perform work
1406 2 clips were replaced on lift maintanace complete Also Inspection Complete need CSE sighn off. CSE Is here.
1407 late entry mode Change complete WCRRF In warm 1245 GM
1412 Inspection sighned off by All needed.
1439 Mode Change Complete WCRRF In operations
1442 bagged on 91002 PPE check sat
1527 bagged off and bagging on 91018 PPE check sat
1621 bagging off and bagging on 90997 PPE check sat
1623 reviewed Inside And outside Rounds.
1740 Bagging off last drum of Day
1800 Mode Change Complete WCRRF In warm
2-9-13 1830 End of shif Securing SOS Position [signature]
119 no further entries on this page

S861608

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-RTR2-13-0028
Examination Date:	2/19/2013
Waste Container ID:	92888
Video/Audio Recorded Media Number:	LA-RTR2-13-0028 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 127.5 kg Tare Wt.: 33.4 kg Net Wt.: 94.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2 (continued)

Waste Container ID: 92888

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Metal lid, metal hardware
AM:	
OM:	
OI:	
C:	Fiberboard insert sleeve, fiberboard
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):	5.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	5.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	80.1
Soils (S):	
Total WMP Weight:	94.1

CCP Radiography Data Sheet

Waste Container ID: 92888

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

RTR Operator:

Eric Lyles		2/19/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92888	Count Sequence Number:	15094		
Operator:	DCLTD231\Operator				
Assay Start:	2/21/2013 10:47:39 AM				
Description 1:	2LANDA1103				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	94.1	kg	Net:	94.1 kg
Container:	Volume:	208.0	l	Full:	90.0 %
Density:		0.500	kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	15094	Batch Number:	2LANDA1103
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92888	Analysis Date:	2/21/2013

Net Weight	94100.0 g		
Pu mass	2.75E+001 +-	6.13E+000	g
TRU Alpha Activity	9.84E+000 +-	4.16E+000	Ci
TRU Activity Concentration	1.05E+005 +-	4.42E+004	nCi/g
Pu-239 Equivalent Activity	9.90E+000 +-	4.16E+000	Ci
Pu-239 FGE	2.60E+001 +-	5.76E+000	g
Decay heat	3.24E-001 +-	1.39E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.22E-001	8.73E-005	1.32E-005	1.97E-006
PU238	2.53E-003	4.38E-002	9.75E-003	3.83E-005
PU239	2.59E+001	1.63E+000	3.62E-001	1.42E-003
PU240	1.65E+000	3.80E-001	8.46E-002	3.33E-004
AM241	2.24E+000	7.79E+000	4.15E+000	8.27E-002
PU241	3.27E-002	3.40E+000	7.57E-001	2.98E-003
PU242	5.52E-003	2.19E-005	4.87E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.61E-007
U233	<LLD	<LLD	0.00E+000	9.24E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.87E-006
U238	<LLD	<LLD	0.00E+000	1.78E-005
AM243	4.62E-003	9.33E-004	1.42E-004	1.32E-005

Errors quoted at 1.000 sigma

Operator: Ann Burton Date: 2/25/13

ITR: [signature] Date: 2/26/13

Automated Independent Technical Review

Count Sequence Number: 15094 Batch Number: 2LANDA1103
Counter ID: HENC #2
Container ID: 92888
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/21/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok

Comments	Disposition
Section 3 - Data Combiner Analysis Override enabled; 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: Sherri Chamberlain Date: 2-25-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92888**

BDR Number: **LA13FG12017**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	8.15	U
74-82-8	Methane	9.63	U
67-56-1	Methanol	30.57	U
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	0.47	U
107-06-2	1,2-Dichloroethane	0.92	U
71-36-3	1-Butanol	0.54	U
108-10-1	Methyl isobutyl ketone	3.11	U
108-88-3	Toluene	2.73	U
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130301C\
Data File : 92888.D
Acq On : 1 Mar 2013 1:42 pm
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 13:51:04 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	11683746	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	9048761	178.75	ppmv	0.00

Target Compounds Qvalue

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

Working Copy
Date: 11-13-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90974

6.2[4] Date Processed: 11/13/12

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

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

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

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

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

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

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

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

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

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

Performed By: JOE QUINTANA, Joe Quintana 23776, 11/13/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT I
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 00474

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 443.6 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 443.6 lb

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

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

EWMO-FOD (print)	Signature	Z #	Date
[illegible]			

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90974

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92366			
10.1[4]	Daughter Drum Filter No.	JL1302			
10.1[4]	Daughter Drum Bag Filter No.	L4326			
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☒ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☒ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See COMMENTS			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)				
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.: 90974

Comments: METAL LID, SALTS, CARDBOARD LINER, KITTY LITTER, PLASTIC

11.1[1] Performed By: JOE QUINTANA, [signature] 239487, 11/13/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Mtz, [signature] 149235, 11-19-12 1330
SOS or designee (print) Signature Z # Date/Time

UET Working Copy
Date: 11/8/12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413954
Lot No.:	211426
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	IL-231
Manufacture Date:	9-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040699	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	± 4% CW ± 6% CCW	± 3% CW ± 6% CCW

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

Performed By: Brandon Chavez / [signature] [redacted] 11-8-12
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] [redacted] 11-8-12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Gilbert Martinez / [signature] 149055 11-19-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-13-12a

ATTACHMENT 5
Page 1 of 1

9-24-17

WCRRF OVERPACK DRUM CLOSURE DATA SHEET 92373

7.[19] Overpack Drum Unique Identifier No.: ~~92367~~

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16-80
Tolerance: +/- 3% cw
+/- 6% ccw

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

Performed By: JOE QUINTANA / Joe Q 239987
Waste Handling Technician (print) Signature Z# Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): ~~326.0~~ 11/13/12 JQ 325.8 lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA / Joe Q 239987 11/13/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Gilbert Mh / [signature] 149235 11-~~18~~ 19.12 6mn.19.12
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92366

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 416265
Lot #: 0229225
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: BDP
Model #: CDDVC-1.5-2.5-SPVC
Serial #: L-4326
Date of Manufacture: 7/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nuc-Fil
Model #: 019-DS
Serial #: SL-1372
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040194
Cal Expiration Date: 9/26/12
Range (ft-lbs or in-lbs): 40-200
Tolerance: +/- 4% CW, +/- 6% CCW

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6/11/13
Range (ft-lbs or in-lbs): 16-80
Tolerance: +/- 32% CW, +/- 6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: B. Fontana Signature: B Fontana Z#: 235635

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 77.1
File ID #: 019065

- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Brian Fontana Operator Sign: B. Fontana Z#: 235635 Date: 11/8/12
Verifier Print: JOE QUINTANA Verifier Sign: [signature] Z#: 239989 Date: 11/13/12

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

DRUM ID#: 92366

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3/15/13

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

-- Tolerance +/- 3% CW +/- 6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 320.2

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: Joel D. Quintana Joel D. Quintana Date: 11/13/12

Verifier Print/Sign: Brandon Cuevas Brandon Cuevas Date: 11-13-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90974 Container Type: POC Gross Weight (lbs): 439

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-436; EL-487

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

TWSR Comments: PARENT #S881608 WTS-12STD-881

Total PE-Ci Activity: 1.70E+00 Equivalent Combustible PE-Ci: 6.37E-01 AM-241 PE-Ci: 1.38E-01

Total Fissile Gram Equivalents: 18.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 WR 10/2/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☐ Repack

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

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009 Nitrate salts mixed with Waste Loc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey / 100681 / Date 9/11/12

Production Control (Print) Signature Z Number

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: 129 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 / Valerie Rhodes / 112607 / 10/2/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Hexarmour gloves when processing waste in the Glove Box. Do not push or press on waste.

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Jose Jerez / Jose Jerez / 221452 / 10-4-12

TRU Remediation Operations (Print) Signature Z Number Date

LL Z# 249750 10/9/12

IHS Review. [signature] CSD Contains lead, chromium, + Hg 10-3-12.

Noncertified TRU Waste Drum Item Information

DrumID: 021796

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SWN (g)	WT	Auth (Pg/Ln)	Comments
1	7LR13W81		19.800	NITRATE SALTS	R04	18.24	52	1/13	G468
2	7LR20E81		19.700	NITRATE SALTS	R04	12.27	52	1/13	G468
3	8OX9W81		20.100	NITRATE SALTS	R04	4.86	52	1/13	G468
4	8EV11W81		10.600	NITRATE SALTS	R04	6.34	52	1/13	G468
5	8LR3E81		14.500	NITRATE SALTS	R04	9.95	52	1/13	G468
6	8LR16E81		16.200	NITRATE SALTS	R04	7.24	52	1/13	G468
7	8LR19E81		10.200	NITRATE SALTS	R04	13.16	52	1/13	G468
8	8LR1E81		15.400	NITRATE SALTS	R04	7.62	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 194.

Material Type	SWN (grams)	Items Net Wt (kg)
52	79.7	126.50
Totals	79.7	126.50

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])	90974					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	222.7 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 (I #), 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90974.D
Acq On : 28 Sep 2012 3:01 pm (#1); 28 Sep 2012 3:00 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 15:10:00 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.259	96	2390012	206.00	ppm	0.00
15) Chlorobenzene-d5	5.939	117	2141569	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.311	GC1	55030m	222.72	ppm	

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

Vocgas.m Fri Sep 28 15:10:08 2012

271
11-13-12

PROJECT NAME _____ NOTEBOOK NO. _____

0600 Assuming WCREF operations center evacuate
0615 Pre job being conducted by SOS
0620 Started inside rounds completed outside rounds.
0655 Inside rounds complete
0718 Inside and outside rounds signed off by SOS.
0731 Mode Change performed TASD-69 and WCREF yard now in operations.
0739 Tank lift inspections complete
0805 Permission granted to start movement into SD-69
0847 bagging on 90884
0900 Completed movement into SD69, bag on complete.
0913 Permission granted to lower vehicle access gate for loading of transport vehicle.
0931 bagging off 90884, bagging on 90941
0958 bag on, bag off complete.
1024 Vehicle access gates have been restored. Loading of transp Vehicle is complete.
1037 bagging off 90941, bagging on 90890
1052 Starting movement into SD 69.
1101 movement into SD-69 is complete.
1105 bag on, bag off complete.
1152 bagging off 90890, bagging on. 90897
1212 bag off, bag on complite.
1319 bagging off 90897 and bagging on 90972
1346 bag off, bag on complite
1431 bagging off 90972, bagging on 90974
1454 bag on, bag off complite.
1455 Starting inside rounds.
1526 Completed inside rounds
1528 Starting movement out of SD-69.
1552 bagging off 90974.
1556 Complete movement out of SD-69.
1600 Starting outside rounds
1615 Completed outside rounds.
1616 bag off is complete.
1618 Rounds have been signed off by SOS.
1620 mode change performed TASD-69 and WCREF yard now in warm Standby.
1640 end of day WCREF Operations center secure, Evacuate
NA No further entries this page

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

307 PROJECT NAME 11/13/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position
0615 Attended pre-job brief conducted by SOS. Discussed winter weather early closure / late opening plans for safety topic, use of hand rails, weekend work including contamination event.
0702 CSE completed sign-off of work packages from weekend maintenance.
0739 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Cold to Operations / Operations.
1100 Briefed to RWP for entering radiation areas.
1200 Conducted call in for solution package processing @ WCRR and team call in regarding production @ WCRR and DVS.
1400 Attended meeting for DVS Filter change out w/ RP-1 and DDP Management. Discussed possibility of utilizing Bldg 412 instead of setting up temporary enclosure in one of the domes. PM will give guidance.
1510 (Late Entry 1310) Performed walkdown of containers in TR4 storage transporteiners w/ Tech 39.
1620 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.
1745 Secured SOM position.

No Further Entries this Date

SIGNATURE _____ DATE 11/13 20 12
READ AND UNDERSTOOD _____ DATE _____ 20 __

11-13-12 WCRR SOS Log Book

0600 Assuming SOS position for the day [signature]

0615 Pre-Job brief started. Discussed Changes to snow and inclement weather procedure Delayed starts and early dismissal. 1 Shipment out eight drums remaining to process prior to removing inventory from the yard and 50-69 to put ic Cold.

0640 Pre-Job concluded

0655 Signed off on outside rounds.

0718 Signed off on inside rounds

0739 Mode Change to Operations in Yard and Building 50-69.

1618 GM 11.13.12 ~~Mode Change Complet WCRRF In u~~ Reviewed Inside And outside Rounds.

1620 Mode Change Complete WCRRF In warm standby.

11-13-12 1630 end of shift Securing SOS Position [signature]

JH
HM

no further entries on this page

CCP Radiography Data Sheet

S881608

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0007
Examination Date:	1/17/2013
Waste Container ID:	92366
Video/Audio Recorded Media Number:	LA-RTR2-13-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-0028-13 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 145.5 kg Tare Wt.: 33.4 kg Net Wt.: 112.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92366

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Metal hardware, metal lid
AM:	
OM:	Scrap lead
OI:	
C:	Fiberboard insert sleeve, fiberboard material
R:	
XPM:	Plastic bags, Liner Lid EL 11/21/13
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	10.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	62.1
Soils (S):	
Total WMP Weight:	112.1

CCP Radiography Data Sheet

Waste Container ID: 92366

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

Comments: NCR-LANL-0028-13

RTR Operator:

Eric Lyles / Michael Simmons — 1/17/2013

Print Name Eric Lyles / Michael Simmons — Signature — Date 1/21/13 / 1/21/13

S881608

NDA 2000 Assay Report

Item Information

Item ID:	92366		Count Sequence Number:	23526	
Operator:	D3PW2DK1\operator				
Assay Start:	9/4/2013 1:21:55 PM				
Description 1:	1LANDA1835				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	112.0 kg	Net:	112.0 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
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:	23526	Batch Number:	1LANDA1835
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	92366	Analysis Date:	9/4/2013

Net Weight	112000.0 g	
Pu mass	6.20E+001 +-	1.00E+001 g
TRU Alpha Activity	9.86E+000 +-	3.68E+000 Ci
TRU Activity Concentration	8.80E+004 +-	3.28E+004 nCi/g
Pu-239 Equivalent Activity	9.99E+000 +-	3.68E+000 Ci
Pu-239 FGE	5.84E+001 +-	9.39E+000 g
Decay heat	3.18E-001 +-	1.22E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.06E-001	7.45E-005	1.22E-005	3.13E-006
PU238	5.67E-003	9.70E-002	1.56E-002	3.24E-005
PU239	5.82E+001	3.61E+000	5.82E-001	1.20E-003
PU240	3.72E+000	8.44E-001	1.36E-001	2.82E-004
AM241	1.55E+000	5.31E+000	3.63E+000	1.40E-001
PU241	7.17E-002	7.39E+000	1.19E+000	2.47E-003
PU242	1.24E-002	4.90E-005	7.91E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.40E-007
U233	<LLD	<LLD	0.00E+000	7.35E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.94E-006
U238	<LLD	<LLD	0.00E+000	1.59E-005
AM243	3.12E-003	6.24E-004	1.04E-004	9.49E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 9.5.13

ITR: _____ Date: 9.5.13

Automated Independent Technical Review

Count Sequence Number: 23526 Batch Number: 1LANDA1835
Counter ID: MCS HENC #1
Container ID: 92366
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/4/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	

Comments	Disposition
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 9-5-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92366**

BDR Number: **LA13FG2098**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	256.28	
74-82-8	Methane	142.14	U
67-56-1	Methanol	111.38	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	31.02	
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	4.94	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

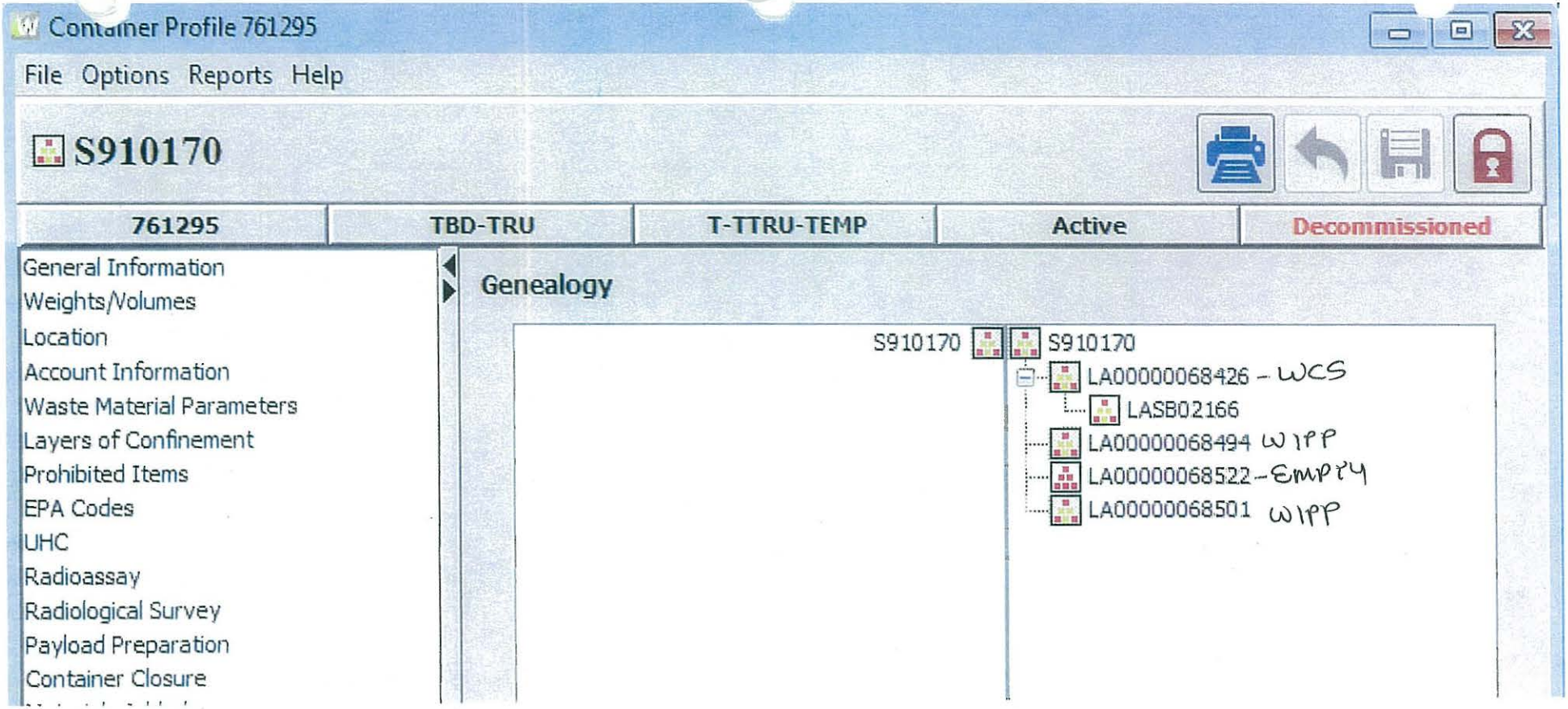
Data Path : C:\msdchem\1\DATA\130909c\
Data File : 92366.D
Acq On : 9 Sep 2013 1:03 pm (#1); 09-Sep-13, 13:02:25 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 13:13:41 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	4846920	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.858	117	3751155	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.617	GC1	1927m	256.28	ppmv	
4) Methanol	0.877	31	43137	111.38	ppmv	100
7) Acetone	1.412	58	44602	31.02	ppmv	87
12) Benzene	3.229	78	84628	4.94	ppmv	98

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

S910170


Container Profile 761295
File Options Reports Help
S910170
761295
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
Genealogy
S910170
S910170
LA00000068426 - WCS
LASB02166
LA00000068494 WIPP
LA00000068522 - Empty
LA00000068501 WIPP

Working Copy
Date: 10-2-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S910170

6.2[4] Date Processed: 10-2-13

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

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: James Sandoval [signature] 176621 10-2-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	S910170
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	401.8 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	82.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	483.8 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.: S910170

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68501	68494	N/A	
10.1[4]	Daughter Drum Filter No.	LM-365	LM-368		
10.1[4]	Daughter Drum Bag Filter No.	L-10297	L-10301		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP		N/A	
	Model No.	6CNC 1.5-25NC			
	Serial No.	L-6742			
	Date of Manufacture	1-13			
10.2[5]	POC ID No	68426			
10.2[7][B]/10.2[6]	POC Item Description	Plastic & Nitrate Salt			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	~~3A~~ 228826			
10.2[14]	POC Assembly Gross Weight (lb)	347.4			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1R			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	10 Gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A			
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	See Comments	N/A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	95%		
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.: S910170

Comments: Nitrate Salts, Plastic, Kitty litter, Ph-level Start -4 and treated Ph-level 7, 10 gallons of liquid

11.1[1] Performed By: Federico Archuleta [signature] 1278824 10-2-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [signature] 1492351 10.3.13 0740
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10/2/13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
Manufacture Date: 2013

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

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

Overpack filtered vent information:

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

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: Not Required at WCRRF

8.1[1] Performed By: [illegible] 1228524 10-2-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez 1149351 10.3.13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-2-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68522

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 Hernandez / [signature] 1228826 / 10-2-13
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: ~~01906 5~~ 019065 10-2-13
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 168.8 lb

Comments: N/A

8.1[1] Performed By: Frederico Hernandez / [signature] 1228826 / 10-2-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 145235 10-3-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 10-1-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68494

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 02A0999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-25PVC
Serial No.: L-10301
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 NEWTON [signature] 191352 10/01/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: LM-368
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.: 68494

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA (Operator (print)) (Signature) 191352 (Z #) 10/01/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) (Signature) 149235 (Z #) 10.3.13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68494

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: +/- 3% CW +/- 6% CCW

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

Performed By: Frederico Arboleda / [signature] 1228826 10-2-13
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	
Range in ft-lb:		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: 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.: 68494

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 421.4 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 Ashlock / [signature] / 1228826 / 10-2-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 1499281 / 10-3-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-1-13a

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68501

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 1.5-3SPVC
- Serial No.: L-10297
- Manufacture Date: 5/13

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

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

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

Performed By: MICHAEL MONTOYA /Signature/ 191352 / 10/01/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
- Manufacturer: NUCFIL
- Model No.: 019 DS
- Serial No.: LM-365
- 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.: 68501

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA [signature] 191352 10/01/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 149285 10.3.13
Supervisor or designee (print) Signature Z # Date

Working Copy

Date: _____

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68501

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

M&TE No.: 037418
Cal. Expiration Date: 03-06-14
Range in ft-lb: 10-80 lbs
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: James Smith / [signature] 1116621 / 10-2-13
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:		
Tolerance:		

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

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

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68501

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 218.0 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: James S... / [signature] 1116621 10-2-13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 1149235 10-3-13
Supervisor or designee (print) Signature Z# Date

No data package available

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

~~SP 1~~ ~~ECR 13~~ 72 IP 6-10-12

Production Control

Container ID: S910170 Container Type: 55-GAL Gross Weight (lbs): 418

Inner Seal #: 023760 Filter Prefix: LAS Filter Serial #: 03349

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: LA-RTR2-11-0147

TWSR Comments: LEACHED SOLIDS SEAL A04449

Total PE-Ci Activity: 7.60E+00 Equivalent Combustible PE-Ci: 2.85E+00 AM-241 PE-Ci: 6.17E-01

Total Fissile Gram Equivalents: 83.9 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D002

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 7/31/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured, Liquid Location: 20

Certified RTR Comment: Unvented Liner, Impenetrable Items, Liquid greater than 1% by volume

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☑ VE ☑ PID ☐ Split ☑ Repack

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

TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D007, D008 and D009 are on the label. A minimum of 1.2 volumes of kitty litter/Zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: R. W. Jones 117434 1-24-12

Production Control (Print) Signature Z Number Date

WDP Engineering

SUSAN S. RAMSEY 100681 11/28/12

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts

Net Wt: 358 lb. No historical info or TWSR available for review. Oracle database shows waste to be uncemented inorganics/nitrate salts from TA-55. Number of nitrate salt waste items is not known. RTR inventory shows 90 mil lined 55 gal drum contains scrap lead, plastic bags, and solid homogeneous material. Nitrate salts may contain undocumented liquids.

May require RWP for >1000 and <10,000 mrem/hr @ 30cm

Performed By: Valerie Rhodes 112609 2/7/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Hexarmour gloves during processing. Do not push or press on waste with hands.

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Clarissa Velarde 234079 2/8/12

TRU Remediation Operations (Print) Signature Z Number Date

Jose Jerez 221452 1-8-13

IHS Review Jaley Amallard CSP, No IH concerns 12/4/12

Robin Shuit 272995 1-14-13

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-11-0147
Examination Date:	11/15/2011
Waste Container ID:	S910170
Video/Audio Recorded Media Number:	LA-RTR2-11-0147 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-3836-11 NCR No.: NCR-LANL-3837-11 NCR-LANL-3838-11

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: 180.5 kg. Tare Wt: 35.1 kg. Net Wt: 145.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	PD 11/30/11 ~~90mil Liner - Unvented~~ PD 11/30/11 90 mil Liner - Unvented
Number of Layers of Confinement:	~~Appears to be 1 layer.~~ Can not Verify PD 11/30/11
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S910170

Section 3: Container Inventory and Comments (Detailed descriptions)
Scrap lead
Plastic bags, 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):	72.2
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	72.2
Soils (S):	
Total WMP Weight:	145.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S910170

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

Comments: NCR-LANL-3836-11
NCR-LANL-3837-11
NCR-LANL-3838-11

RTR Operator:

Philip Dillard		11/15/11
Print Name	Signature	Date

11/30/11

SP1

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 1/25/12

Container No. (5.[1])	5910170	66472	5832499	No Fuel Gases 1/30/12	No Fuel Gases 1/30/12	No Fuel Gases 1/30/12
Filtered Vent Type (5.[1])	72	72	72			
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	Ø ppm	Ø ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	318.12 ppm	1268.67 ppm	194.12 ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	Ø ppm	Ø ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero / 236973
CCP (Print) Z#

Reviewed By: Gabe Romero / 236973
CCP (Print) Z#

Comments: N/C

6.1[2][A] ($) WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT

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

6.1[2][B]/ 6.1[3] Performed By: Alicia Herrera [signature] 198460 / 1/30/12
Waste Handling Operator (print) Signature Z# Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120125c\
Data File : S910170.D
Acq On : 25 Jan 2012 4:28 pm (#1); 25-Jan-12, 16:27:33 (#2)
Operator : GR
Sample :
Misc : 55 GALLON LFL FROM UNDER DRUM LID (72) (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 16:38:12 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Tue Oct 18 13:58:45 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.615	96	6814409	209.00	ppmv	-0.02
15) Chlorobenzene-d5	5.931	117	5691819	185.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.605	GC1	2504	318.12	ppmv	100

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

vocgas.m Wed Jan 25 16:38:20 2012

10-2-13

0604 Assuming WCRRF operations center - Clelands.
0613 Pre job being performed by SOS
0636 Pre job has been concluded.
0650 Operators entering ST-69.
0800 Bagging off 1 daughter, Bagging on 1 daughter, continuing to process
0825 Bag on, Bag off is complete. Cams CV10-2-13 are elevated, Cam C2 at 0.16 DAC hrs. All other cams are nominal. LAS survey are NDA.
0839 Cam in nominal range operators continuing to process
0940 Bagging off, Bagging on 9910170
1015 Bag on, Bag off complete
1156 Bagging off 1 daughter, Bagging on 1 daughter.
1219 Bag on of 1 daughter complete.
1410 Operators notifying operations center the copper pipeing is coming loose over the glovebox. SOS and SOM have been notified.
1422 SOS and SOM have determined that copper piping is OK and stable, FSR will be submitted.
1437 FSR#112562 submitted for copper pipeing repair.
1503 Bagging off 1 daughter 1 POC, Bagging on 9843528
1520 Starting movement into of 50-69.
1540 movement into 50-69 is complete.
1550 Bag on, Bag off complete
1606 Starting inside rounds.
1615 Starting movement out of 50-69.
1630 Item #63 is OOS, POD in place Okay to proceed per CSE
1634 Insides rounds complete.
1706 Starting outside rounds.
1717 Bagging off 1 daughter, Bagging on another
1723 Item 79 is unsat FSL in place, OK to proceed.
1734 Bag on, Bag off complete continuing to process
1735 Rounds signed off by SOS.
2131802 Being relieved by OCO Terri Coleman - Clelands
HG JJ

no further entries this page

10.2.13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [signature]

0615 Conducted Shift Brief discussed Current Condition with off going crew.

0636 Concluded shift brief.

0650 Operator's entering 50-69

0800 Bagging off 1 daughter, Bagging on Another.

0825 Bagging on Bagging off complete. Cam Elevated Cam C2 At 0.6 DaC hrs. LAS are NDA.

0839 Cam back to normal Continuing to process

0940 Bagging off bagging on S910170

1015 Bag on/off complete

1156 Bagging off one daughter bagging on Another

1219 Bag on/off Complete

1410 Operators notified of Copper Piping going to Air Samplers was resting on Glove Box. SOM was notified

1422 SOM And myself made determination on Piping It was taped ~~off~~ up FSR Put In To Remain.

1437 FSR #12512 Submitted to replace Copper Piping

1503 bagging off 1daughter 1 POC bagging on S843528

1520 Starting movement Into 50-69

1540 moven Complete

1550 Bag on/off complete

1606 Starting Rounds.

1615 Starting move out of 50-69

1717 Bagging off 1 daughter bagging on Another

1734 Bag on/off complete

1735 Reviewed Inside And outside Rounds

1800 Operators Exited 50-69

RRA 1815 Relieved by Clayton Mullins [signature]

no further entries on this page

10-2-13 Day shift

0605 Reviewed the shift turnover checklist and assumed the SOM position John Guadagnol

0613 Reviewed and approved the day shift watch bill. Procedure driven work released

0630 Completed attending the pre-job brief conducted by the SOS (Gilbert) The safety topic was to stay focused and ensure no distractions. RP-1 discussed Lessons Learned, with Hi dose drums, rotation of personnel, use of lead blankets, and utilize time and distance. An operator noted the cutter was getting sticky, as a result, day shift will replace the cutter. Currently there are 4 spots open in the transportainer. Per shift turnover, we will need supplies for the glove box and gloves will require checking.

0710 Completed am phone call with area G SOM statusing POD activities.

0713 Completed extending shift order WCRR-SH-13-005 R0 - Provide precautionary Instructions to Prevent Bag Tears, through 10-9-13.

0801 Inside Operators initiated bag off of 1 daughter and bag on, and continue processing parent S845338.

0825 Bag on and Bag off complete, CAM ~~[illegible]~~ C2 was elevated and noted at 0.6 DAC - all other CAMs are normal - LAS surveys are NDA -

0839 CAM-C2 noted in normal range operations will continue to process

0940 Bagging off - Bagging On S910170

1015 Bag on and Bag off complete and 2 daughters generated from S845338

1145 Inside operations report bag on of a daughter and bag off completed and continue to process.

1225 Completed the daily Facility update with OM, PM an ES/PM and SOM.

1235 P&T arrives to obtain RWP brief in preparation of tomorrows transfer.

1317 Reviewed and approved WO# 00458847-01 50-84(A) LAE (SHUTDOWN) Air Cond.

1410 Inside operators report that the copper piping holding the air head is loose. The piping was taped to secure (safe configuration) FSR-112562 submitted.

1503 Inside Operators initiate Bag on of 1 daughter and Bag off of another and initiate bagging on S843528

1520 Outside Operators initiate movement in of 3 Parents into 50/69 facility.

1550 Bag on/Bag off noted completed.

1600 Completed ensuring consumable/SS supplies inventory was conducted and supplies ordered. Obtained 1" slings to support denesting. Certifications provided to the OCO and SOM. Som ensured secured in Level B storage.

(Continued on Next 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:	68426	
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.: 158.0 kg Tare Wt.: 145.1 kg Net Wt.: 12.9 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: 68426

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	11.9
Soils (S):	
Total WMP Weight:	12.9

CCP Radiography Data Sheet

Waste Container ID: 68426

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

S910170

NDA 2000 Assay Report

Item Information

Item ID:	68426	Count Sequence Number:	23745		
Operator:	D3PW2DK1\operator				
Assay Start:	10/29/2013 2:19:41 PM				
Description 1:	1LANDA1855				
Description 2:	POC 158.0				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	12.9	kg	Net:	12.9 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.659	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:	23745	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:	68426	Analysis Date:	10/29/2013

Net Weight	12900.0 g		
Pu mass	1.56E+002	+- 5.43E+001	g
TRU Alpha Activity	1.51E+001	+- 4.26E+000	Ci
TRU Activity Concentration	1.17E+006	+- 3.30E+005	nCi/g
Pu-239 Equivalent Activity	1.54E+001	+- 4.26E+000	Ci
Pu-239 FGE	1.47E+002	+- 5.42E+001	g
Decay heat	4.78E-001	+- 1.36E-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	6.34E-007
U233	<LLD	<LLD	0.00E+000	7.17E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.13E-006
NP237	8.21E-002	5.79E-005	1.03E-005	3.18E-006
PU238	1.43E-002	2.44E-001	9.55E-002	9.50E-004
U238	<LLD	<LLD	0.00E+000	1.31E-005
PU239	1.47E+002	9.09E+000	3.36E+000	3.54E-002
PU240	9.38E+000	2.13E+000	8.42E-001	8.28E-003
AM241	1.05E+000	3.60E+000	2.47E+000	1.45E-001
PU241	1.80E-001	1.85E+001	7.32E+000	7.20E-002
PU242	3.13E-002	1.24E-004	4.89E-005	0.00E+000
AM243	2.39E-003	4.78E-004	8.64E-005	9.42E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 10-31-13

Automated Independent Technical Review

Count Sequence Number: 23745 Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68426
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.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu239 FGE >200g with 2*TMU but <325g.

Expert Review by: Sheri Chamberlain 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: **68426**

BDR Number: **LA13FG2115**

Sampling Date: **11/13/2013**

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\131113c\
Data File : 68426.D
Acq On : 13 Nov 2013 12:58 pm (#1); 13-Nov-13, 12:58:07 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 13:06:29 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	3.574	96	4647344	205.75	ppmv	0.06
15) Chlorobenzene-d5	5.874	117	3589992	177.50	ppmv	0.01
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68494
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.: 196.5 kg Tare Wt.: 33.4 kg Net Wt.: 163.1 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:	100 %

CCP Radiography Data Sheet

Waste Container ID: 68494

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):	151.1
Soils (S):	
Total WMP Weight:	163.1

CCP Radiography Data Sheet

Waste Container ID: 68494

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	B [signature]	10/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68494		Count Sequence Number:	23756	
Operator:	D3PW2DK1\operator				
Assay Start:	10/30/2013 1:20:50 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:	163.0 kg	Net:	163.0 kg	
Container:	Volume:	208.0 l	Full:	100.0 %	
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:	23756	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:	68494	Analysis Date:	10/30/2013

Net Weight	163000.0 g		
Pu mass	8.54E+001	+- 1.84E+001	g
TRU Alpha Activity	2.10E+001	+- 8.13E+000	Ci
TRU Activity Concentration	1.29E+005	+- 4.99E+004	nCi/g
Pu-239 Equivalent Activity	2.11E+001	+- 8.13E+000	Ci
Pu-239 FGE	8.06E+001	+- 1.83E+001	g
Decay heat	6.84E-001	+- 2.70E-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	1.54E-006
U233	<LLD	<LLD	0.00E+000	1.66E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.42E-006
NP237	2.72E-001	1.92E-004	3.79E-005	6.80E-006
PU238	7.80E-003	1.33E-001	3.50E-002	1.92E-003
U238	<LLD	<LLD	0.00E+000	2.86E-005
PU239	8.01E+001	4.97E+000	1.14E+000	7.14E-002
PU240	5.12E+000	1.16E+000	3.13E-001	1.67E-002
AM241	4.28E+000	1.47E+001	8.04E+000	1.55E-001
PU241	9.81E-002	1.01E+001	2.72E+000	1.45E-001
PU242	1.71E-002	6.75E-005	1.82E-005	0.00E+000
AM243	1.26E-002	2.51E-003	5.01E-004	2.22E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23756 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68494
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. FGE is greater than the upper limit of 200.00 Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Multiplication in drum. Neutron results rejected. Gamma results applied. Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 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: **68494**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	119.83	
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 : 68494.D
Acq On : 22 Nov 2013 10:09 am (#1); 22-Nov-13, 10:09:03 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 10:17:59 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	3.535	96	4752281	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.855	117	3561065	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.599	GC1	901m	119.83	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68501
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.: 99.0 kg Tare Wt.: 33.4 kg Net Wt.: 65.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68501

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
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):	59.6
Soils (S):	
Total WMP Weight:	65.6

CCP Radiography Data Sheet

Waste Container ID: 68501

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:	68501		Count Sequence Number:	23755	
Operator:	D3PW2DK1\operator				
Assay Start:	10/30/2013 12:35:13 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:	65.6 kg	Net:	65.6 kg	
Container:	Volume:	208.0 l	Full:	50.0 %	
Density:		0.630 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23755	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:	68501	Analysis Date:	10/30/2013

Net Weight	65600.0 g	
Pu mass	6.42E+000 +-	1.41E+000 g
TRU Alpha Activity	5.34E-001 +-	8.53E-002 Ci
TRU Activity Concentration	8.14E+003 +-	1.30E+003 nCi/g
Pu-239 Equivalent Activity	5.48E-001 +-	8.53E-002 Ci
Pu-239 FGE	6.05E+000 +-	1.32E+000 g
Decay heat	1.68E-002 +-	2.66E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.79E-002	4.79E-005	8.40E-006	3.33E-006
PU238	5.87E-004	1.00E-002	2.20E-003	3.38E-005
PU239	6.02E+000	3.73E-001	8.20E-002	1.26E-003
PU240	3.85E-001	8.74E-002	1.92E-002	2.95E-004
AM241	1.80E-002	6.19E-002	1.36E-002	2.09E-004
PU241	7.37E-003	7.59E-001	1.67E-001	2.56E-003
PU242	1.29E-003	5.08E-006	1.11E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.79E-007
U233	<LLD	<LLD	0.00E+000	8.76E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.58E-006
U238	<LLD	<LLD	0.00E+000	1.29E-005
AM243	6.33E-003	1.27E-003	2.23E-004	1.22E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23755 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68501
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; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test failed.	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.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain 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: **68501**

BDR Number: **LA13FG2110**

Sampling Date: **10/31/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	474.25	
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)

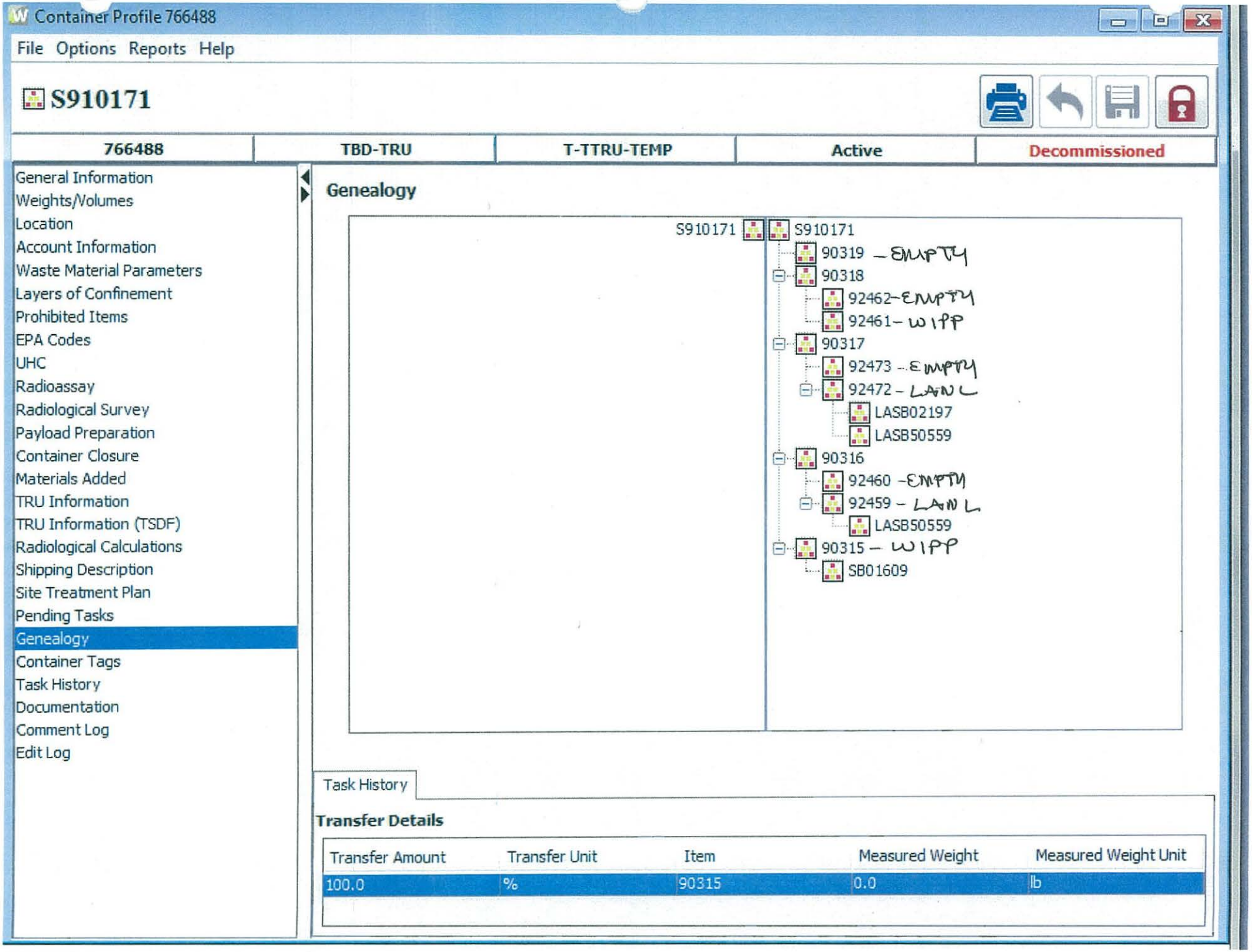
Data Path : C:\msdchem\1\DATA\131031c\
Data File : 68501.D
Acq On : 31 Oct 2013 2:38 pm (#1); 31-Oct-13, 14:37:49 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 14:46:42 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.539	96	4851947	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.845	117	3763302	177.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.609	GC1	3566m	474.25	ppmv	

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

S910171


Container Profile 766488
File Options Reports Help
S910171
766488
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
S910171
S910171
90319 – EMPTY
90318
92462–EMPTY
92461– WIPP
90317
92473 – EMPTY
92472 – LANL
LASB02197
LASB50559
90316
92460 –EMPTY
92459 – LANL
LASB50559
90315 – WIPP
SB01609
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weight Unit
100.0
%
90315
0.0
lb

ATTACHMENT 1
Page 1 of 3

10-L-11,5C

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.. 5910171

6.2[4] Date Processed: 10-20-11

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

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

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

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

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

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

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

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

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

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

Performed By: Brandon Garcia 237695 10-20-11
Waste Handling Tech (print) Signature 7 # Date

5.[16] Prepared Parent Drum Weight (lb): 232.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 80.0 lb

ATTACHMENT 1

Page 2 of 3

4.1[6][B] Parent Waste Container No.: 5910171

6.2[5][B]
6.2[6] Total Parent Drum Weight (lb) 312.6 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.	90315			
10.1[4]	Daughter Drum Filter No.	HK-818			
10.1[4]	Daughter Drum Bag Filter No.	W00867			
10.1[4]	Daughter Drum Purchase Order No.	414944			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☒ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☒ N/A
10.2[4]	POC bag-on bag Manufacturer	BOP	BOP	BOP	
	Model No.	BOP3PVC	BOP3PVC	B3PVC	
	Serial No.	W00-906	W00 947	W01042	
	Date of Manufacture	5-11	5-11	5-11	
10.2[5]	POC ID No — 90316	BG-10-20-11 ~~364.6~~	90317	90318	
10.2[7][B] 10.2[6]	POC Item Description	absorbant plastic, oil Nitrated salts	absorbant Plastic Nitrated Salts	absorbant Plastic Nitrated salts	
10.2[7][D] 10.2[8][D]	Bag-out Bag Filter No.	W00-906	W00-947	W01042	
10.2[13]	POC Assembly closed per Manufacturer's instructions (Initial and Z#)	BG 237895	BG 237845	BG 237895	
10.2[14]	POC Assembly Gross Weight (lb)	364.6	372.2	380.2	—
10.2[15]	POC Rad. Survey Results (mrem/hr)	431 mR	—	—	—
10.3[3][A]	Approx. Containerized Liquid Vol./Units	17 gal	—	—	—
10.3[7][A]	Opaque Non-penetrable Item Description:	N/A	—	—	—
10.3[5][A]	Free Liquid Volume Units	1 gal	—	—	—
10.3[9][A]	PCB-contaminated Waste Description	N/A	—	—	—
10.3[9][B]	PCB Item ID No.	N/A	—	—	—
10.3[10]	Remaining Waste Description	See comments	" "	" "	—
10.3[13]/10.4[12] 10.5[5]	Daughter Drum % Full (%)	85%	—	—	—
10.5[4]	Description Waste Added During Processing	Plastic	" "	" "	

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.. 5910171

Comments: plastic, metal cans 7 4L, ~~absorbants~~ BG 10-20-11, cheese clothe absorbed oil, Nitrate salts. absorbants

11.1[1] Performed By: Brandon Garcia / [signature] 237895 10-20-11
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Anthony Vigil / Anthony Vigil 184864 10-24-11
SOS/SOM (print) Signature Z # Date

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

85-Gallon Overpack ID Number 90319

NucFil 013

RECORD Drum Filter information:	
Filter ID Number:	FK-177
Date of Manufacture:	9.10

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#	N/A	M&TE ID#	038369
Cal Expiration Date	N/A	Cal Expiration Date	5-23-12
			+/-3% (CW)
Tolerance	N/A	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	N/A
		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
Brandon Garcia		BG	1237845	10-20-11
Hector Guereca		HG	1238782	10-20-11

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

Drum ID#: 90315

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 #: 414944
Lot #: 217306
Date of Manufacture: 11

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:
Manufacturer: BOP
Model #: 3cpv1.5-2 SPVC
Serial #: W00867
Date of Manufacture: 5-11

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 019DS
Serial #: HK 818
Date of Manufacture: 5 10

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	038369
Cal Expiration Date:	9-12-12	Cal Expiration Date:	5-23-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±3% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Gerald Espinosa Signature [signature] Z#: 237770

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 76.0
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Gerald Espinosa Operator Sign: [signature] Z#: 237770 Date: 10 18 11
Verifier Print: Brandon Garcia Verifier Sign: [signature] Z#: 237895 Date: 10-20-11

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

DRUM ID#: 90315

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

X Mount lid with filter directly over drum seam.

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

X 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.

X Tighten jam nut

Record torque wrench information:

MT&E #: 038369

Cal expiration date: 5-23-12

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

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

2. DRUM LABELING

NOTE Do not cover the drum seam with any labels.

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

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

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

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

RCRA Label:

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

OR

N/A 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) 1990

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

X Place attachment 1 and 2 and HMPT Tag into a protective sleeve

X Complete TWSR.

Operator Print/Sign: Alonzo Guerrero Date 10-20-11

Verifier Print/Sign: Brandon Garcia Date: ~~237895~~ BG 10-20-11 10-20-11

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S910171 Container Type: 85-GAL Gross Weight (lbs): 230

Inner Seal #: 025643 Filter Prefix: LAS Filter Serial #: 02330

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

TWSR Comments: NITRATED SALTS SEAL B13863

Total PE-Ci Activity: 9.46E+00 Equivalent Combustible PE-Ci: 3.55E-00 AM-241 PE-Ci: 7.39E-00

Total Fissile Gram Equivalents: 23.2 Total Surface Dose Rate (mrem/hr): 43

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 7/23/2007 Comment: Liquids. Sealed Ctr > 4L. 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: LA125M Production Control Comments:

Performed By: R. W. Jones (Production Control (Print)) R. W. Jones (Signature) 117434 (Z Number) 1-17-11 (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: Solid waste record indicated nitrated salts, 15 items identified as leached solids, heaviest item is 8.2 kg (18 lbs). Net weight 58 kg (128 lbs). May require RWP for >10,000 mrem/hr @ 30-cm. Container S910171 is identified as a "high dose campaign" and "leached solids" drum. Attached e-mails dated 5 Jan 2011 and 26 Jan 2011 provide handling instructions for these two issues. RTR indicates liner not punctured and liquid located @ 25.

Performed By: Michael D. Garcia (WDP Engineering (Print)) Michael D. Garcia (Signature) 099143 (Z Number) 2/9/11 (Date)

TRU Remediation Operations

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

Other Specific Safety Concerns:

Processing Determination: ☑ Accept Reject

TRU Remediation Operations Comments:

Performed By: Clarissa Valdez (TRU Remediation Operations (Print)) Clarissa Valdez (Signature) 233079 2-10-11 (Z Number Date)

Noncertified TRU Waste Drum Item Information

DrumID: 025643

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
0	SALTSEV24			LEACHED SCLIDS	R04	1.15	52	8/13	
1	SALTSEV24			LEACHED SOLIDS	R04	0.11	44	8/13	
2	SALTEV22			LEACHED SOLIDS	R04	4.68	52	8/13	
3	SALTEV22			LEACHED SOLIDS	R04	0.22	44	8/13	
4	SALTEV21			LEACHED SOLIDS	R04	2.15	52	8/13	
5	SALTEV21			LEACHED SOLIDS	R04	0.41	44	8/13	
6	SALTS20			LEACHED SOLIDS	R04	3.16	52	8/13	
7	SALTS20			LEACHED SOLIDS	R04	0.28	44	8/13	
8	SALTSEV15			LEACHED SOLIDS	R04	3.28	52	8/13	
9	SALTSEV15			LEACHED SOLIDS	R04	0.39	44	8/13	
10	SALTEV16			LEACHED SOLIDS	R04	4.67	52	8/13	
11	SALTEV16			LEACHED SOLIDS	R04	0.26	44	8/13	
12	SALTSEV3			LEACHED SOLIDS	R04	2.91	52	8/13	
13	SLATSEV3			LEACHED SOLIDS	R04	0.2	44	8/13	
14	SALTSEV1			LEACHED SOLIDS	R04	2.61	52	8/13	
15	SALTSEV1			LEACHED SOLIDS	R04	0.21	44	8/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 104.1

Material Type	SNM (grams)	Items Net Wt (kg)
44	2.08	0.00
52	24.61	0.00
Totals	26.69	0.00

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 11/26/11

7.[7] Certified CCP Technician:

Sara Aragon	I Sara Aragon	1337775	11-31-11
CCP (Print)	Signature	Z #	Date
/	/	/	/
CCP (Print)	Signature	Z #	Date

Container No. (7.[1]):	S910171	S825639	S851682
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene			
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	Ø

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):		5910171	5825639	5851682
	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] 178450 1/31/11
Waste Handling Operator (print) Signature 7 # 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 117686 1/31/11
11.1[8] Waste Handling Supervisor (print) Signature 7 # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110126c\
Data File : S910171.D
Acq On : 26 Jan 2011 3:07 pm (#1); 26-Jan-11, 15:06:30 (#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 15:44:10 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	3.691	96	8025636	205.50	ppmv	0.06
15) Chlorobenzene-d5	6.020	117	6554128	182.75	ppmv	0.06
Target Compounds						Qvalue

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

vocgas.m Wed Jan 26 15:44:45 2011

230
10-20-11

PROJECT NAME _____ NOTEBOOK NO _____

0600 Assuming WCRR operations center. Coleman.
0610 Beginning inside and outside rounds.
0620 Pre-job being conducted by SDS.
0629 Item #61 on the rounds is unsat. Per CSE, we are okay to proceed.
0640 Outside rounds complete.
0641 Inside rounds complete.
0643 Rounds complete and reviewed by SDS.
0728 Mode change complete. We are now in operations.
0755 Initiating a drum movement from SD69 to a transportainer.
0805 Bagging on drum #5911071.
0817 Movement out of facility complete.
0819 Initiating a drum movement from transportainer to the transfer vehicle for shipment to Area G.
0825 Lowering vehicle access gates to load transfer vehicle.
0840 Vehicle access gates restored. Transfer vehicle loaded. Transportainer secured. 30 sc 10-20-11
0841 Operators have encountered a sealed 50 gallon poly-liner with a metal ring. Stapped and grounded container.
0844 Beginning 30-minute wait time.
0914 30 minute wait time has elapsed. Resuming operations.
1130 Bagging off with 3 PCC's and bagging on drum #5862901.
1142 Lowering vehicle barriers to begin receipt of drums from Area G. More absorbent being introduced into WCG.
1220 Shipment from Area G accepted. Transportainers closed and latched. Vehicle access gates restored.
1408 Bagging off and bagging on drum #5910172
1455 Operators report drum #5910172 is another wet drum and they will be requiring more absorbent to introduce into the WCG.
1510 Initiating a drum movement from SD69 to a transportainer.
1511 Introducing 100 lbs of absorbent into the WCG.
1520 Drum movement out of facility complete.
1535 Beginning outside rounds and inside rounds.
1555 Item #16 is unsat on the rounds. Per CSE documentation we are okay to proceed.
1610 Outside rounds and inside rounds complete.
1613 Bagging off drum #5910172.
1614 Rounds reviewed by SDS.
1709 Initiating a drum movement from SD 69 to a transportainer.
1710 Drum movement out of facility complete
1711 Mode change complete. We are now in CAP mode in SD69 and Beam Standby in the Cave.
1730 End of day. Operations secure. Coleman
No further entries this page.

GW 10/25/11

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

8

10-20-11 PROJECT NAME WCRR SOM Logbook NOTEBOOK NO.

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

0615 Observed pre-job briefing. Briefed all operators to shift older WCRR-SH-11-007 and Criticality Briefing.

0728 Mode change complete WCRR YARD from WARM to OPERATIONS and 50-69 from WARM to OPERATIONS.

1300 Weekly Staff meeting held at TA50-196.

1711 Mode change complete WCRR YARD from OPERATIONS to WARM and 50-69 from OPERATIONS to COLD.

1730 Securing the WCRR SOM POSITION. [signature]

No Further Entries

SIGNATURE [signature] DATE 10-20 20 11

READ AND UNDERSTOOD DATE 20

NO 181 PROJECT NAME WCRR SOS LOGBOOK NOTEBOOK NO

10-20-11 AW0600 REVIEWED SOS TURNOVER ASSUMING WCRR SOS POSITION [signature]
0615 CONDUCTED SHIFT BRIEF
0645 RND'S were REVIEWED BY Gilbert Martinez
0700 SHIFT BRIEF CONCLUDED
1522 ~~End of~~ SECURING WCRR SOS POSITION. [signature]
1523 Reviewed SOS Turnover Assuming SOS Position [signature]
1614 Reviewed Inside And outside Rounds
1730 End of shift securing WCRR SOS Position [signature]

GW 10/25/11

NO FURTHER ENTRIES ON THIS PAGE

SIGNATURE [signature] DATE 20
READ AND UNDERSTOOD DATE 20

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-11-0140
Examination Date:	11/02/2011
Waste Container ID:	90315
Video/Audio Recorded Media Number:	LA-RTR2-11-0140 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
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:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt: 91.0 kg. Tare Wt: 33.4 kg. Net Wt: 57.6 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	Fiberboard Liner - No Liner Lid
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90315

Section 3: Container Inventory and Comments (Detailed descriptions)
Metal cans w/material, metal lids, metal closure ring, hand tool, metal hardware PD 11/3/11
Rubber gloves
Plastic bags, horsetails, plastic sheeting, plastic liner lid
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	*Estimated Weight (kg)*
Steel (ST):	27.7
Plastics (PP): Liner Bag	2.0
Others: Fiberboard (C)	3.7
Total Packaging Weight:	33.4
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	30.6
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	3.0
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	20.0
Soils (S):	
Total WMP Weight:	57.6

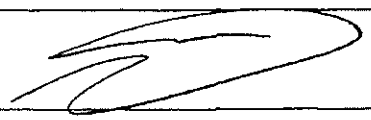
Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90315

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

Comments: This drum contains metal cans with material, which may require additional Project Office review.

RTR Operator:

Philip Dillard		11/2/11
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	90315		Count Sequence Number:	19543	
Operator:	D3PW2DK1\operator				
Assay Start:	11/3/2011 2:49:33 PM				
Description 1:	1LANDA1490				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, Not Counted to Precision				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	57.6 kg	Net:	57.6 kg	
Container:	Volume:	208.0 l	Full:	80.0 %	
Density:		0.350 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:	19543	Batch Number:	1LANDA1490
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 13	Software Version:	NDA 2000 V.4.0
Item ID:	90315	Analysis Date:	11/3/2011

Net Weight	57600.0 g		
Pu mass	1.70E+001	+- 3.07E+000	g
TRU Alpha Activity	2.34E+000	+- 5.97E-001	Ci
TRU Activity Concentration	4.07E+004	+- 1.04E+004	nCi/g
Pu-239 Equivalent Activity	2.39E+000	+- 5.97E-001	Ci
Pu-239 FGE	1.60E+001	+- 2.88E+000	g
Decay heat	7.54E-002	+- 1.98E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.06E-002	1.47E-005	1.88E-006	1.11E-006
PU238	1.58E-003	2.73E-002	4.93E-003	3.41E-005
PU239	1.60E+001	1.00E+000	1.81E-001	1.25E-003
PU240	1.02E+000	2.35E-001	4.23E-002	2.93E-004
AM241	3.10E-001	1.08E+000	5.67E-001	2.79E-002
PU241	2.15E-002	2.23E+000	4.03E-001	2.79E-003
PU242	3.41E-003	1.35E-005	2.44E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.56E-007
U233	<LLD	<LLD	0.00E+000	2.70E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.01E-007
U238	<LLD	<LLD	0.00E+000	6.51E-006
AM243	1.04E-003	2.11E-004	2.71E-005	3.59E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-9-11

ITR: _____ Date: 11-9-11

Automated Independent Technical Review

Count Sequence Number: 19543 Batch Number: 1LANDA1490
Counter ID: MCS HENC #1
Container ID: 90315
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 11/3/2011

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: Shein Chamber Date: 11-7-11

Attachment 4 – Flammable Gas Analysis Form SCO 1050 Addendum 1 Windows XP SP3 - Excel 2007

Waste Container ID: **90315**

BDR Number: **LA11FG8124**

Sampling Date: **11/4/2011**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\111104c\
Data File : 90315.D
Acq On : 4 Nov 2011 12:51 pm
Operator : ms
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM FROM UNDER DRUM LID (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 12:59:50 2011
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.262	96	4477612	208.25	ppm	0.00
15) Chlorobenzene-d5	5.933	117	3659954	185.50	ppm	0.00

Target Compounds Qvalue

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

12-11-12 Rgl

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90316

6.2[4] Date Processed: 12/11/12

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

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

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

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

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

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

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

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

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

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

Performed By Gerald Espinoza / [signature] 1257720 12/11/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90316

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 369.2 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 369.2 lb

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

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

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 92316

		Daughter Drums			
10.1[4]/10.2[4]	Daughter Drum No.	92459 ✓			
10.1[4]	Daughter Drum Filter No.	AM 1034			
10.1[4]	Daughter Drum Bag Filter No.	L43410			
10.1[4]	Daughter Drum Purchase Order No.	411e184			
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 2#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic			

N/A
N/A
N/A
N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90316

Comments: Salts, Plastic, POC lid, Kitty litter, Particle board.

11.1[1] Performed By: Gerald Espinoza | [signature] | 2377201 | 12/11/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez | [signature] | 2214521 | 12/17/12 0844
SOS or designee (print) Signature Z # Date/Time

UET Copy

1129-12W

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413724
Lot No.:	210114
Manufacture Date:	10

5.[8] Overpack filtered vent information:

Manufacturer:	Nuc Fil
Model No.:	013
Serial No.:	12-238
Manufacture Date:	9-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021181
Cal. Expiration Date:	09/26/2013	06/11/2013
Tolerance:	+/- 4% CW & +/- 6% CCW	+/- 3% CW & +/- 6% CCW

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

Performed By: [signature] [signature] 240894 11/29/12
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

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

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

8.1[7] Reviewed By: Jose Jerez [signature] 22/1/12 12/17/12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12/4/12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92460

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 021151
- Cal. Expiration Date: 6-11-13
- Range in ft-lb: 40-80
- Tolerance: ±3% CW ±6% CCW

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

Performed By: Gerald Esparza / [signature] 237760 / 12/31/12
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 318.0 lb

Comments: N/C

8.1[1] Performed By: Gerald Esparza / [signature] 237760 12/31/12
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Jose Jerez / [signature] 224521 12/31/12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92459

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 #: 4400164
- Lot #: 2497224
- Date of Manufacture: 1-12

2. Drum Liner Bag/Filter Assembly:
- ☑ Place yellow vinyl tape, with arrow 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: Ref
- Model #: [illegible]
- Serial #: [illegible]
- Date of Manufacture: 1-12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:
- ☑ Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- ☑ Place cardboard/plastic liner into drum liner bag/filter assembly
- ☑ Line up filter with drum seam
- ☑ Place liner/bag/filter assembly into drum
- ☑ Roll excess liner bag into cardboard liner/plastic liner

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

RECORD drum filter information:
- Manufacturer: [illegible]
- Model #: [illegible]
- Serial #: [illegible]
- Date of Manufacture: 1-12

RECORD torque wrench information

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038507
Cal Expiration Date:	9-22-13	Cal Expiration Date:	3-16-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	± 4% cal value	Tolerance:	± 3% cal value

Torque wrenches listed above are within the acceptable range as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Eddie Pins Signature: [signature] ID: 187822

5. Weigh Drum Assembly
RECORD weight information: DE 12/11/12
- Tare weight (lbs): 76 75.8
- File ID #: 090605
- ☑ 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

Operation Print: Eddie Pins Operation Sign: [signature] ID: 187822 Date: 12-7-12

Verifier Print: Gerald Espinoza Verifier Sign: [signature] ID: 287720 Date: 12/11/12

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

DRUM ID#: 92459

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 #: 02151

Cal expiration date: 10-11-13

Range/ Value (ft-lbs): 160-80

--- 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) 247.2

Scale ID#: 0190605

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

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area

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

✓ Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date 12/11/12

Verifier Print/Sign: [signature] Date: 12/11/12

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90316 Container Type: POC Gross Weight (lbs): 365

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-79; EL-82

TK Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-11-0144

TWSR Comments: PARENT #S910171 WTS-12STD-618

Total PE-Ci Activity: 2.36E+00 Equivalent Combustible PE-Ci: 8.87E-01 AM-241 PE-Ci: 1.85E+00

Total Fissile Gram Equivalents: 5.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): None D007 D008 D009 [illegible] 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Does not match the waste steam

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 D008, D007, & D009. Nitrate salts mixed with WasteLoc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 9/4/12
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☒ Accept Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 55 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 >1000 and <10,000 mrem/hr

RTR BDR inventory shows homogeneous solids + plastic bag

Performed By: Valerie Rhodes / [signature] / 112609 / 10/3/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands; Utilize hexarms gloves & tools to handle waste.

Processing Determination: ☑ Accept Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez / [signature] / 221452 / 10-15-12
TRU Remediation Operations (Print) Signature Z Number Date

OK 2#0249950 10/19/12

HS Review: RB 206362 10.4.12

Noncertified TRU Waste Drum Item Information

DrumID: 035643

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	GWM (g)	WT	Auth (Pg/Lm)	Comments
0	SAL/TSEV24			LEACHED SOLIDS	R04	1.15	52	B/13	
1	SAL/TSEV24			LEACHED SOLIDS	R04	0.11	44	B/13	
2	SAL/TSV22			LEACHED SOLIDS	R04	4.88	52	B/13	
3	SAL/TSV22			LEACHED SOLIDS	R04	0.32	44	B/13	
4	SAL/TSV21			LEACHED SOLIDS	R04	3.15	52	B/13	
5	SAL/TSV21			LEACHED SOLIDS	R04	0.41	44	B/13	
6	SAL/TSV20			LEACHED SOLIDS	R04	3.16	52	B/13	
7	SAL/TSV19			LEACHED SOLIDS	R04	0.28	44	B/13	
8	SAL/TSEV1[illegible]			LEACHED SOLIDS	R04	3.28	52	B/13	
9	SALTSEV1[illegible]			LEACHED SOLIDS	R04	0.39	44	B/13	
10	SAL/TSV1C			LEACHED SOLIDS	R04	4.67	52	B/13	
11	SAL/TSV1C			LEACHED SOLIDS	R04	0.26	44	B/13	
12	SAL/TSEV1			LEACHED SOLIDS	R04	2.21	52	B/13	
13	SLATSEV1			LEACHED SOLIDS	R04	0.2	44	B/13	
14	SALTSEV1			LEACHED SOLIDS	R04	1.61	52	B/13	
15	SAL/TSEV1			LEACHED SOLIDS	R04	0.21	44	B/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): [illegible].1

Material Type	GWM (grams)	Items Net Wt (kg)
44	2.88	0.00
52	24.61	0.00
Totals	26.49	0.00

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-11-0144
Examination Date:	11/09/2011
Waste Container ID:	90316
Video/Audio Recorded Media Number:	LA-RTR2-11-0144 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-3834-11 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt: 167.0 kg. Tare Wt: 145.9 kg. Net Wt: 21.1 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 99316

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag
Homogenous solids

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	~~109.8~~ CLH/10/11
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (Inside POC)	28.0 CLH/10/11
Total Packaging Weight:	~~145.9~~ CLH/10/11
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.1
Organic Matrix (OR):	CLH/10/11
Inorganic Matrix (IN):	~~21.0~~ 21.8
Soils (S):	CLH/10/11
Total WMP Weight:	~~21.1~~ 21.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90316

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Questions 1.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
Is there an indication of wastes incompatible with backfill, seal and penal closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
CH or RH TRAMPAC		
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments: Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-3834-11

RTR Operator

Print Name	Signature	Date
Eric Lyles		11/9/11
		11/10/11

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	40316					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19.DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP Print), 237975 (Z #)

Reviewed By: NATHAN WALES (CCP Print), 238866 (Z #)

Comments: Per attached email, container has been verified as POC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: SUSAN RAMSEY (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90316.D
Acq On : 5 Oct 2012 2:49 pm (#1); 5 Oct 2012 2:48 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM THROUGH 19DS-UNOBSTRUCTED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 14:56:58 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	2326290	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2093705	179.50	ppm	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Oct 05 14:57:09 2012

PROJECT NAME _____ NOTEBOOK NO. _____

0535 Assuming WCR operations center. JColeman
0605 Beginning outside rounds.
0615 Pre job being conducted by SOS. Beginning inside rounds.
0629 Item #61, PDI-012 is OOS. POD in place per CSE.
0635 Outside rounds complete.
0645 Inside rounds complete.
0656 Both rounds reviewed by SOS.
0716 Mode change complete. We are now in operations mode.
0735 Initiating a drum movement from 50-69 to a transportainer.
0748 Drum movement out of facility complete.
0756 Beginning to denest drum # S855230.
0800 PPE check is set inside 50-169 for operators beginning to denest.
0808 Bagging on drum # S855230. Denesting complete.
0818 Bag On complete.
0835 Initiating a drum movement from transportainer to 50-69.
~~0845 Drum movement~~ JC
0923 Drum movement into facility complete.
0924 Late entry - at 0855, operators pausing operations while RP-1 perform maintenance on the PCM-2 (JC)
1000 Bagging off S855230 and 1 POC, bagging on 90316. PPE check is set.
1001 Late entry - at 0955, PCM-2 maintenance completed (JC)
007 Permission granted to lower the vehicle access barriers to begin receipt of drums from Area G.
1030 Notified by operate inside 50-69 that while performing the bag off, bag on, they found contamination on 3 leather gloves and on the bag of the POC. Contamination level was 1000 DPM. The contamination was contained. Pausing to evaluate. SOS, lead RCT notified, SOM notified as well.
1039 ES&H notified. Bag on complete.
1041 All personnel are exiting the facility. SOM notified the OM.
1123 Shipment from Area G received. Vehicle access gates restored. Transportainers secured.
1124 We will remain in a pause until the IWD can be written so that leather gloves are not required when performing bagons/bagoffs, only use high dexterity gloves
1405 Beginning inside rounds.
1435 Item #61 PDI-012 is OOS. POD in place per CSE.
1445 Inside rounds complete.
1512 Beginning outside rounds.
1527 Outside rounds complete.
Continued on next page - JColeman

SIGNATURE _____ DATE _____ 20 _____
READ AND UNDERSTOOD _____ DATE _____ 20 _____

PROJECT NAME NOTEBOOK NO.

12-11-12 Continued from previous page. JColeman

1530 Both rounds received by SO3, ops entering SO-69.

1549 Operators state PPE sat. Resuming operations.

1550 Late entry-at 1535 pause ended. Operators briefed to new JHA (#1001) regarding wearing the high dexterity gloves when working on the drum lift. JC

1607 Bagging off S JC 12-11-12 90316

1623 Bag off completed.

1638 Mole change complete. We are now in warm standby.

12-11-12 1700 End of day. CCO position secured. JColeman

JJ

No further entries this page

SIGNATURE _____ DATE _____ 20

UNDERSTOOD _____ DATE _____ 20

PROJECT NAME 12/11/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position [signature]

0615 Attended pre job brief conducted by SOS. Discussed the need for watching out for new employees being introduced @ WCRR as in helping out during their learning curve. Safety Share on black ice - what to watch out for.

0700 Performed morning call into TA-54 SOM to status WCRR work.

0714 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0733 Extended Shift Order WCRR-SH-12-11 to Check for Wounds for 1 week effective today @ 0600.

0855 RP-2 onsite to perform maintenance on PCM-2

0900 Notified by WMC that LLW cannot support the outgoing LLW shipment today. Reschedule for tomorrow.

0915 Informed by OM that S824548 which was processed on 11/27/12 produced daughter 92400 completed RTR and showed sealed 5 gal container and possible liquid in bag - Operator who worked drum ~~[illegible]~~ 12/11/12 reported that 5 gal was rusted through and not sealed - liquid in bag was absorbed. CCP personnel had no backup information in their logs. Recommended sending drum thru HE-RTR.

1030 Notified by OCO of contamination found during bag off operations. Levels reported highest being 1000 dpm/100 cm² alpha on 3 pairs of leather gloves and on bagged off POC (plastic near horsetail).

1041 All operators exiting 50-69 - calling a safety pause to discuss use of leather gloves - operators reporting that was cause of contamination due to not being able to create a tight horsetail. Notified OM.

1124 After discussing w/ operators and OM will remain in safety pause for WCG processing until IWD revision is complete. It is @ USQ.

1200 Called into weekly LFL status meeting. LFL's are starting back up tomorrow @ TA-54 and have SP 57 drums in the queque. J. Gallegos will provide numbers to get on next Tuesday shipment. S. Ramsey will supplement shipment w/ SP-72 drums as required. Statused PM on WCRR processing and issues encountered today.

1450 Received completed USQ from engineering to allow use of high dexterity gloves for waste processing.

1535 Completed briefing workers on new IWD and USQ for waste processing. Safety pause lifted - resuming operations.

1620 Caution tags were placed on VS-V-139 and VS-V-142 to warn personnel "Do Not Operate" due to PDI-012 and VS-V-141 being isolated until repairs can be completed on system.

1635 Completed mode change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1645 Secured SOM position [signature]

6 1-3-13

No further entries this date

SIGNATURE [signature] DATE 12/11 20 12

READ AND UNDERSTOOD DATE 20

12-11-12 WCRR SOS Log Book

0600 Assuming SOS position for the day. [signature]

0615 Starting Pre Job brief. Discussed Ice not necessarily being in the same location as it was yesterday. Ice from yesterday may have thawed out during the day but when it refreezes it maybe in a different location today. 1 shipment in today. Ensure procedure is followed step by step. Processing waste drums 1 Solution Package 57 the remaining are Solution package 72. 1 Parent will need to be D-Nested Solution Package 72 will need to be slinged to overpack into 85 once emptied.

0635 Concluded Pre-Job Brief.

0655 Signed off on inside and outside rounds.

0716 Mode Change. In Operations Mode in WCRR Yard and 50-69

0756 Beginning to D-Nest 55 from 85

0818 Bagging on first drum for the day.

0855 Operation are on pause while RP-1 works on the PCM to get it fixed.

0955 PCM maintenance complete. Resuming Operations.

1030 Notified by operator inside TA 50-69 that while performing the bag off bag on they found contamination on 3 leather gloves and on the bag of the POC. Contamination level was 1000 DPM Contamination was contained. Pausing to evaluate

1039 ES OM notified.

1044 All personnel are exiting the facility for a minor safety pause to evaluate the use of leather gloves during bag offs performing horse tail.

1100 Met with crew that was processing this morning and are initiating the safer pause. Discussed the concerns that were raised. One issue being the use of the old bags that are in the POC's. The horsetail is way thick and therefore having to do two cuts with the cutters. SOM stating that Revision to

Continued on next page.

12-11-12 Continued from previous page.

IWD is at USQ and awaiting aproval. Another ~~issue~~ JJ 12-11-12 issue that the operators mentioned that dextirity is an ~~1st~~ JJ 12-11-12 issue also.

1138 Contacted Energy Solutions Operations manager JJ 12-11-12 and IH to discuss the concerns of the operators They understood. Path forward is to change the bags.

1145 Operators clarified that the POC's aren't spun the same way as the daughter drums because the waste and the bag do not spin in the POC's because it is a smooth cylinder on the inside. The horse tail is made by gathering the bag as tight as possible.

1439 Notified by SOM that the IWD has gone through USQ and getting final signatures. Will need to brief crew to IWD, then crew will go in to finish processing the Drum that is currently bagged on.

1500 Briefed crew to IWD. Crew going in to process

1524 Signed off on inside rounds.

1545 ~~1607~~ JJ 12-11-12 Starting to process last drum for the day

1607 Bagging off last drum. Processed two parents today. One from SP 57 and one from SP 72 generated one POC and one daughter.

1638 MODE change complete. In Warm in Yard and 50-69.

12-11-12 1645 Securing SOS position for the day. [signature]

LLG

No further entries on this page.

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0105
Examination Date:	9/4/2013
Waste Container ID:	92459
Video/Audio Recorded Media Number:	LA-RTR2-13-0105 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 112.0 kg Tare Wt.: 33.4 kg Net Wt.: 78.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92459

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal lid, hardware
AM:	
OM:	
OI:	
C:	Fiberboard insert sleeve, fiberboard packing material
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):	12.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	6.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	54.6
Soils (S):	
Total WMP Weight:	78.6

CCP Radiography Data Sheet

Waste Container ID: 92459

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		9/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

********** Item Information **********

Item ID:	92459		Count Sequence Number:	23534	
Operator:	D3PW2DK1\operator				
Assay Start:	9/5/2013 10:23:07 AM				
Description 1:	1LANDA1836				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	78.6	kg	Net:	78.6 kg
Container:	Volume:	208.0	l	Full:	90.0 %
Density:		0.420	kg /l		

********** System Configuration **********

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23534	Batch Number:	1LANDA1836
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	92459	Analysis Date:	9/5/2013

Net Weight	78600.0 g		
Pu mass	1.02E+001	+-	1.62E+000 g
TRU Alpha Activity	1.96E+000	+-	6.48E-001 Ci
TRU Activity Concentration	2.49E+004	+-	8.24E+003 nCi/g
Pu-239 Equivalent Activity	1.98E+000	+-	6.48E-001 Ci
Pu-239 FGE	9.63E+000	+-	1.52E+000 g
Decay heat	6.36E-002	+-	2.15E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.87E-002	2.02E-005	2.82E-006	1.41E-006
PU238	9.34E-004	1.60E-002	2.54E-003	3.33E-005
PU239	9.58E+000	5.94E-001	9.45E-002	1.24E-003
PU240	6.13E-001	1.39E-001	2.21E-002	2.90E-004
AM241	3.52E-001	1.21E+000	6.41E-001	3.84E-002
PU241	1.18E-002	1.22E+000	1.93E-001	2.54E-003
PU242	2.04E-003	8.08E-006	1.28E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.24E-007
U233	<LLD	<LLD	0.00E+000	3.61E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.01E-006
U238	<LLD	<LLD	0.00E+000	6.68E-006
AM243	1.53E-003	3.06E-004	4.32E-005	4.82E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 9-9-13

ITR: _____ Date: 9/9/13

Automated Independent Technical Review

Count Sequence Number: 23534 Batch Number: 1LANDA1836
Counter ID: MCS HENC #1
Container ID: 92459
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/5/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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 Chandler Date: 9-9-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92459**

BDR Number: **LA14FG2051**

Sampling Date: **4/3/2014**

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\140403C\
Data File : 92459.D
Acq On : 3 Apr 2014 2:22 pm (#1); 03-Apr-14, 14:21:58 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 03 14:30:30 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	3574943	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.888	117	2850120	177.50	ppmv	0.03
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

UET Copy
12-10-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90317

6.2[4] Date Processed: 12/12/12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) n/a (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☐ NO ☑ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Michael Romero Michael Romero 182723 12/12/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90317

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 376.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B] Total Parent Drum Weight (lb) 376.2 lb

6.2[6]

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90317

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90472			
10.1[4]	Daughter Drum Filter No.	3L-SFF 1360		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4376 4355			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed	☐ YES	☐ NO	☑ N/A	
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES	☐ NO	☑ N/A	
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)	N/A			
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:			N/A	
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90317

Comments: plastic, bolts, metal lid, salts, cardboard

11.1[1] Performed By: Michael Romero [signature] 182723 12/17/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [signature] [signature] 149275 1-3 13-1240
SOS or designee (print) Signature Z # Date/Time

UNT Working Copy
Date: 12/11/12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 4137824
Lot No.: 210114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 2L-247
Manufacture Date: 9-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4ft.-cw ±6ft.-ccw	±3ft.-cw ±6ft.-ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS [signature] 1267129 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS [signature] 1267129 12-11-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: [signature] [signature] 149227 12/13
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.: 92473

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 021151
- Cal. Expiration Date: 6/10/13
- Range in ft-lb: 16-80
- Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero [signature] 182724 12/17/12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 015065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 323.2 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182724 12/17/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: [signature] [signature] 149251 12-17-12
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: ~~92472~~ 92472

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 416184
Lot #: 229224
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:
Manufacturer: BOP
Model #: 6CPUC 1.5-2 SPUC
Serial #: L9355
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 liner with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 01405
Serial #: JL1360
Date of Manufacture: 7/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	9/26/13	Cal Expiration Date:	6/11/13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	+/- 4% CW +/- 6% CCW	Tolerance:	+/- 3% CW +/- 6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: JOE QUINTANA Signature: Joe Z Z#: 239987

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 76.0
File ID #: 070615

- [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: JOE QUINTANA Operator Sign: Joe Z Z#: 239987 Date: 11/19/12

Verifier Print: Michael Romero Verifier Sign: Z#: 182723 Date: 12/07/12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92472 ~~92427~~ 92472 VM 9-24-14

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 021151

Cal expiration date: 6-11-13

Range/ Value (ft-lbs): 16-80

--- Tolerance ±3% ~~±6%~~ cw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 228.4

Scale ID#: 191065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date: 12/17/12

Verifier Print/Sign: [signature] Date: 12/17/12

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90317 Container Type: POC Gross Weight (lbs): 372

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-147; EL-159

TRK Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-11-0144

TWSR Comments: PARENT #S910171 WTS-12STD-669

Total PE-Ci Activity: 2.36E+00 Equivalent Combustible PE-Ci: 8.87E-01 AM-241 PE-Ci: 1.85E+00

Total Fissile Gram Equivalents: 5.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): ~~None~~ D007 D008 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Does not match the waste steam

Prohibited Items: Sealed > 4 Liters Liquid Pressurized Container Impenetrable Item ✓ Other

Security Determination: ✓ Green Yellow

Remediation Determination: VE PID Split ✓ Repack

Estimated 30-cm Dose Rate (mrem/hr): <100 >100 and <1,000 ✓ >1,000 and <10,000 >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007, D008, & D009. Nitrate salts mixed with WasteLoc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 9/4/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes ✗ No Unknown

Processing Determination: ✗ Accept Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 62lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for [redacted] and mercury. No chemicals present. May require RWP for >1000 + <10000 mrem/hr.

RTR BDR inventory shows homogeneous solids + plastic bag

Performed By: Valerie Rhodes / [signature] / 112609 / 10/3/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

✓ Waste Container Information Evaluated Less Than 170 lbs RTR Video Available

Other Specific Safety Concerns: Use Hexarmour gloves when processing waste. Do Not push or press on waste with hands; ~~Utilize~~ Hexarmor gloves [initials] 10/19/12

Processing Determination: ~~& tools to handle waste~~ [initials] 10/19/12 ✓ Accept Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez / [signature] / 221452 / 10-15-12
TRU Remediation Operations (Print) Signature Z Number Date

CH Z# 249750 10/19/12

IHS REVIEW: RB 206362 10.4.12

Noncertified TRU Waste Drum Item Information

DrumID: 025643

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	WT	Auth (Pg/Ln)	Comments
0	SALTSEV24			LEACHED SOLIDS	R04	1.15	52	8/13	
1	SALTSEV24			LEACHED SOLIDS	R04	0.11	44	8/13	
2	SALTEV22			LEACHED SOLIDS	R04	4.68	52	8/13	
3	SALTEV22			LEACHED SOLIDS	R04	0.22	44	8/13	
4	SALTEV21			LEACHED SOLIDS	R04	2.15	52	8/13	
5	SALTEV21			LEACHED SOLIDS	R04	0.41	44	8/13	
6	SALTS20			LEACHED SOLIDS	R04	3.16	52	8/13	
7	SALTS20			LEACHED SOLIDS	R04	0.28	44	8/13	
8	SALTSEV15			LEACHED SOLIDS	R04	3.28	52	8/13	
9	SALTSEV15			LEACHED SOLIDS	R04	0.39	44	8/13	
10	SALTEV16			LEACHED SOLIDS	R04	4.67	52	8/13	
11	SALTEV16			LEACHED SOLIDS	R04	0.26	44	8/13	
12	SALTSEV3			LEACHED SOLIDS	R04	2.91	52	8/13	
13	SLATSEV3			LEACHED SOLIDS	R04	0.2	44	8/13	
14	SALTSEV1			LEACHED SOLIDS	R04	2.61	52	8/13	
15	SALTSEV1			LEACHED SOLIDS	R04	0.21	44	8/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 104.1

Material Type	SNM (grams)	Items Net Wt (kg)
44	2.08	0.00
52	24.61	0.00
Totals	26.69	0.00

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-11-0144
Examination Date:	11/09/2011
Waste Container ID:	90317
Video/Audio Recorded Media Number:	LA-RTR2-11-0144 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-3834-11 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt: 170.0 kg. 145.1 EL 11/10/11 Tare Wt: ~~145.8~~ EL 11/10/11 kg. 24.9 EL 11/10/11 Net Wt: ~~24.1~~ EL 11/10/11 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90317

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag Homogenous solids

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	~~109.8~~ ~~409.8~~ EL 11/10/11
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0 ~~145.1~~ EL 11/10/11
Total Packaging Weight:	~~145.9~~ EL 11/10/11
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.1
Organic Matrix (OR):	~~EL 11/10/11~~ ~~EL 11/10/11~~
Inorganic Matrix (IN):	~~24.0~~ 24.9
Soils (S):	~~EL 11/10/11~~ ~~EL 11/10/11~~
Total WMP Weight:	~~24.1~~ 24.9

053

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90317

Section 5: RTR Summary (Questions answered YES will be explained in the Comments block, except for Question 1.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container **GREATER** than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
CH or RH TRAMPAC		
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-3834-11

RTR Operator:

Print Name	Signature	Date
Eric Lyles	lyle	11/9/11
	lyle	11/10/11

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	90317					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	1905					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

Reviewed By: NATHAN WALES (CCP (Print)) 238866 (Z #)

Comments: Per attached email, container have been verified as POC

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: SUSAN RAMSEY (Waste Handling Operator (print)) [signature] (Signature) 100681 (Z #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90317.D
Acq On : 5 Oct 2012 3:11 pm (#1); 5 Oct 2012 3:10 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM THROUGH 19DS-UNOBSTRUCTED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 15:18:32 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	2322238	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2088887	179.50	ppm	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Oct 05 15:18:46 2012

302 PROJECT NAME _____ NOTEBOOK NO. _____

12-17-13 12-17-12

0600 Assuming WCRRF operations center - Cvelande
0605 Starting outside rounds, operator notifying ops center gate open
0610 Starting inside rounds
0635 ~~0635~~ Item 61 is OOS, CSE documentation ok to proceed.
outside rounds complete.
0700 Inside and outside rounds signed off by SOS
0745 Mode change performed TA50-69 and WCRRF yard in operations
0747 Operators notifying operations center small forklift is frozen.
0949 Starting movement into TA50-69.
1003 Completed movement 50-69.
1012 bagging on 90324
1017 PPE check is SAT
1043 PPE check is sat.
1124 PPE check is sat.
1133 bagging off 90324, bagging on 90718
1204 bag on, bag off complete and PPE check is sat.
1205 late entry 1023 bag on is complete - Cvelande
1303 bagging off 90718 and 2POCs, bagging on 90317, PPE check is sat.
1345 bag on, bag off complete
1412 PPE check is sat
1415 Starting movement out of TA50-69
1420 bagging off 90317, bagging on 85272
1428 movement out of 50-69 complete.
1431 Starting movement into 50-69.
1437 bag on, bag off complete. PPE check is sat
1445 Starting outside rounds.
1502 outside rounds complete.
1503 Starting inside rounds, PPE check is sat
1515 Item 61 is OOS per CSE documentation ok to proceed.
1529 Inside and outside rounds signed off by SOS.
1604 Bag off is complete.
1622 mode change performed TA50-69 and WCRRF yard now in Warm Standby.
12-17-12 1630 end of day WCRRF operations center secure - Cvelande

no further entries this page

SIGNATURE _____ DATE _____ 20

PROJECT NAME 12/17/12 NOTEBOOK NO.

0600 Reviewed Shift turnover and assumed WCRR SOM
0700 Called into TA-54 Daily Brief conducted by TA-54 SOM and status WCRR work for today.
0705 Late Entry - 0615 Attended pre job brief conducted by SOS - discussed lessons learned from last week including twice daily roundsheet requirements while in warm mode. Clearing of areas of snow and ice
0720 Met w/ OSPAT supervisor regarding transportation schedule for this week and first week back from break. Agreed to an In/Out tomorrow followed by Out only on Thurs 12/20. After the break will have an outgoing on Thurs 1/3/13 if possible incoming if needed - will assess this week based on production.
0745 Completed Mode Change: WCRR Yard/Bldg. 50-69 from Warm/Cold to Operations/Operations.
0746 Notified by operators that both forklifts were not working due to cold weather (hydraulics froze up => can't operate mast controls / up down or tines, etc). Both forklifts in sunny area of yard to allow for warm up.
0949 Forklifts determined to be operable. Moving inventory into Bldg 50-69
1012 Begging on 1st drum onto WCG
1030 Discussed maintenance schedule w/ MSS OM and RP-1 supervisor. Goal is to complete all of last weeks PM's, this weeks and TSI 6.3.2 this Friday. Will require more than 2 RCT's and 3 operators currently scheduled.
1200 Daily call in with PM and OM to status WCRR operation for the day.
1442 Notified by RP-1 supervisor that detector on PCM in Bldg 50-69 requires replacement. RP-2 on-site to repair and calibrate.
1458 PCM repairs complete.
1510 CCP Operator reported that one of the drums moved into 50-69 for processing #91805 should have went to Flam Gas instead of WCRR - Noticed by NCR tag on drum and reading notes in SED's packet on NCR documentation.
1600 Verified path forward of drum 91805 w/ CCP management. Will make arrangements to ship back to TA-54 for Flam Gas.
1622 Completed Mode Change: WCRR yard / Bldg 50-69 from Operations/Operations to Warm/Warm.
1645 Secured SOM position

No further entries this page

SIGNATURE _____ DATE 12/17 20 12
READ AND UNDERSTOOD _____ DATE _____ 20 _____

12-17-12 WCRR SOS LOG Book

0600 Assuming SOS Position A. M. J

0603 Shift brief started did Post Job Prior to Discussed window change that took place 12-13-12 reviewed new BWP

0655 Shift brief Concluded.

0700 reviewed Inside and outside Rounds

0745 Mode change Complete WCRRF IN operations.

0750 Late entry Unable to move drums out of transportainer due to Ice And snow operators spreading Ice melt needs to thaw or forklift will stay stock 0715 GM.

0936 Ice has Melted of moving In drums From transportainer to 50-69

1012 bag off first drum for Day 90324

1017 PPE Check sat

1043 PPE Check Sat

1124 PPE Check SAt

1133 bagging off And bagging on 90718

1204 bag off complete PPE chack sat

1303 baging off And bagging on 90317 PPE Check sat

1412 PPE Check sat

1420 bagging off and bagging on 55272

1526 Reviewed Inside And Outside outside Rounds

1622 Mode Change Complete WCRRF IN Warm

12-17-12 1630 end of shift securing SOS Position A. M. J

1119

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-RTR2-13-0139	
Examination Date:	12/20/2013	
Waste Container ID:	92472	
Video/Audio Recorded Media Number:	LA-RTR2-13-0139	A&B
Procedure and Revision No.:	CCP-TP-053	Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A	

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 103.5 kg Tare Wt.: 33.4 kg Net Wt.: 70.1 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: 92472

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal hardware, pipe component lid
AM:	
OM:	
OI:	
C:	Fiberboard liner sleeve, packaging material
R:	
XPM:	90 mil liner lid, plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	19.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	34.6
Soils (S):	
Total WMP Weight:	70.1

CCP Radiography Data Sheet

Waste Container ID: 92472

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		12/20/2013
Print Name	Signature	Date

S910171

NDA 2000 Assay Report

Item Information

Item ID:	92472	Count Sequence Number:	24059		
Operator:	D3PW2DK1\operator				
Assay Start:	1/3/2014 3:31:15 PM				
Description 1:	1LANDA1886				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	70.1	kg	Net:	70.1 kg
Container:	Volume:	208.0	l	Full:	65.0 %
Density:		0.520	kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24059	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:	92472	Analysis Date:	1/3/2014

Net Weight	70100.0 g			
Pu mass	1.27E+001	+-	2.38E+000	g
TRU Alpha Activity	3.19E+000	+-	3.86E-001	Ci
TRU Activity Concentration	4.56E+004	+-	5.50E+003	nCi/g
Pu-239 Equivalent Activity	3.22E+000	+-	3.86E-001	Ci
Pu-239 FGE	1.19E+001	+-	2.24E+000	g
Decay heat	1.04E-001	+-	1.27E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.89E-002	3.45E-005	5.40E-006	2.08E-006
PU238	1.15E-003	1.97E-002	3.72E-003	3.38E-005
PU239	1.19E+001	7.36E-001	1.39E-001	1.26E-003
PU240	7.59E-001	1.72E-001	3.24E-002	2.95E-004
AM241	6.61E-001	2.27E+000	3.59E-001	5.36E-002
PU241	1.44E-002	1.48E+000	2.79E-001	2.54E-003
PU242	2.53E-003	1.00E-005	1.88E-006	0.00E+000
SR90	6.18E-009	8.53E-007	4.80E-007	0.00E+000
CS137	9.82E-009	8.53E-007	4.80E-007	4.50E-007
U233	<LLD	<LLD	0.00E+000	4.54E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.38E-006
U238	<LLD	<LLD	0.00E+000	1.04E-005
AM243	1.76E-003	3.53E-004	5.58E-005	6.37E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1.7.14

ITR: _____ Date: 1.9.14

Automated Independent Technical Review

Count Sequence Number: 24059 Batch Number: 1LANDA1886
Counter ID: MCS HENC #1
Container ID: 92472
Waste Matrix Code: Debris S5000 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. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 1-6-14

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92472**

BDR Number: **LA14FG2003**

Sampling Date: **1/10/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	110.78	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	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 : 92472.D
Acq On : 10 Jan 2014 2:33 pm (#1); 10-Jan-14, 14:33:15 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 14:45:23 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	3.601	96	3371263	205.75	ppmv	0.08
15) Chlorobenzene-d5	5.897	117	2710172	177.50	ppmv	0.04
Target Compounds						Qvalue
1) Hydrogen	1.595	GC1	833m	110.78	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 12-12-12 jc

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90318

6.2[4] Date Processed: 12/12/12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007-D008-D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☐ NO ☑ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Michael Romero Michael Romero 182723 12/12/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 90318	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	385.4 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)	385.4 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

EWMO-FOD (print)	Signature	Z #	Date
	NA	/	/ /

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90318

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92461			
10.1[4]	Daughter Drum Filter No.	Am-1035		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4316			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed	☐ YES	☐ NO	☑ N/A	
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES	☐ NO	☑ N/A	
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)	NA		NA	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90			
10.5[3]/10.6[2]	Description Waste Added During Processing	Shds outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90318

Comments: plastic, metal lid, bolts, salts

11.1[1] Performed By: Michael Romero Michael Romero 182723 12/12/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez Gilbert Martinez 114235 12/12/12 0945
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413954
Lot No.:	211426
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	D13
Serial No.:	IL 294
Manufacture Date:	9-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinoza [signature] 1237720 11/28/12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 1182783 12/12/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Martinez [signature] 1452351 12-17-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-12-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92462

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 021151
Cal. Expiration Date: 6-11-13
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero [signature] 182723 / 12/12/12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 324.8 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 / 12/12/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Martinez [signature] 149235 12.17.12
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly Drum ID#: 92461

1. Drum/Lid Assembly
- [x] Remove and discard ¼" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 416184
Lot #: 0229227
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: DOP
Model #: GCPV 1.5-20 SPVC
Serial #: 1-9346
Date of Manufacture: 1/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:
- [ ] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter
- [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 ¼" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 01905
Serial #: [illegible]
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038367
Cal Expiration Date:	9-26-13	Cal Expiration Date:	3-16-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+-4% ea	Tolerance:	+-3% ea
	+-6% ea		+-6% ea

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Eddie Rios Signature: [signature] Z#: 187822

5. Weigh Drum Assembly
RECORD weight information
Tare weight (lbs) 76.0
File ID #: 019065
- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly
- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Eddie Rios Operator Sign: [signature] Z#: 187822 Date: 12-7-12
Verifier Print: Michael Romero Verifier Sign: Michael Romero Z#: 182723 Date: 12/12/12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92461

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 #: 02115

Cal expiration date: ~~9-26-13~~ MR 12-19-12 6-11-13

Range/ Value (ft-lbs): 16-80

Tolerance ± 3% cw ± 6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 252.4

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: Gerald Espinoza Date: 12/12/12

Verifier Print/Sign: [signature] Date: 12/12/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90318 Container Type: POC Gross Weight (lbs): 380

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-84; EL-88

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-11-0144

TWSR Comments: PARENT #S910171 WTS-12STD-629

Total PE-Ci Activity: 2.36E+00 Equivalent Combustible PE-Ci: 8.87E-01 AM-241 PE-Ci: 1.85E+00

Total Fissile Gram Equivalents: 5.8 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): ~~None~~ D007 D008 D009 W 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Does not match the waste steam

Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ✔ Other

Security Determination: ✔ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007, D008, & D009.

Nitrate salts mixed with Waste Loc 770® from previous repack campaign. A minimum of 1:2 volume of Kitty Litter/Zeolite must be mixed with 1:0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan B. Ramsey 100681 (Z Number) 9/4/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 70 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 > 1000 & < 10,000 mrem/hr.

RTR BDR inventory shows homogeneous solids & plastic bags

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes 112609 (Z Number) 10/3/12 (Date)

TRU Remediation Operations

✔ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use Hexarmour gloves when processing waste. Do not push or press on waste with hands. Utilize hexarmor gloves & tools to handle waste.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: Jose Jerez 122452 (Z Number) 10-15-12 (Date)

OK Z# 249750 10/19/12.

IHS REVIEW: RS 206362 10.4.12

Noncertified TRU Waste Drum Item Information

DrumID: 015443

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	GHN (g)	NT	Auth (Pg/Lm)	Comments
0	SALT26V24			LEACHED SOLIDS	RD4	1.15	52	8/13	
1	SALT26V24			LEACHED SOLIDS	RD4	0.11	44	8/13	
2	SALTEV22			LEACHED SOLIDS	RD4	4.68	52	8/13	
3	SALTEV22			LEACHED SOLIDS	RD4	0.32	44	8/13	
4	SALTEV21			LEACHED SOLIDS	RD4	2.15	52	8/13	
5	SALTEV21			LEACHED SOLIDS	RD4	0.41	44	8/13	
6	2ALT820			LEACHED SOLIDS	RD4	1.16	52	8/13	
7	SALT820			LEACHED SOLIDS	RD4	0.26	44	8/13	
8	SALT8EV15			LEACHED SOLIDS	RD4	1.28	52	8/13	
9	SALT8EV15			LEACHED SOLIDS	RD4	0.39	44	8/13	
10	SALTEVA6			LEACHED SOLIDS	RD4	4.67	52	8/13	
11	SALTEV16			LEACHED SOLIDS	RD4	0.26	44	8/13	
12	SALT8EV3			LEACHED SOLIDS	RD4	2.91	52	8/13	
13	SLAT8EV3			LEACHED SOLIDS	RD4	0.2	44	8/13	
14	SALT8EV1			LEACHED SOLIDS	RD4	2.81	52	8/13	
15	SALT8EV1			LEACHED SOLIDS	RD4	6.21	44	8/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 104.1

Material Type	GHN (grams)	Items Net Wt (kg)
44	2.68	8.00
52	24.61	0.00
Totals	26.88	0.00

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-11-0144
Examination Date:	11/09/2011
Waste Container ID:	90318
Video/Audio Recorded Media Number:	LA-RTR2-11-0144 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-3834-11 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt: 173.0 kg. 145.1 CLH 10/11 Tare Wt: ~~145.8~~ CLH 10/11 kg. 27.9 CLH 10/11 Net Wt: ~~27.1~~ CLH 10/11 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90318

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bags
Homogenous solids

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	~~109.8~~ EL 11/10/11
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0 EL 11/10/11
Total Packaging Weight:	~~145.9~~ EL 11/10/11
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	EL 11/10/11
Inorganic Matrix (IN):	~~26.1~~ 26.9 EL 11/10/11
Soils (S):	EL 11/10/11 EL 11/10/11
Total WMP Weight:	~~27.1~~ 27.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90318

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 1.)	Yes	No
Is there observable liquid?	☐	☑
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
CH or RH TRAMPAC		
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☐	☑
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments: Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-3834-11

RTR Operator:

Print Name	Signature	Date
Eric Lyles		11/9/11
		11/10/11

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	90318					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PCC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) / 237975 (Z #)

Reviewed By: NATHAN WALES (CCP (Print)) / 238866 (Z #)

Comments: Per attached email, container has been verified as POC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: SUSAN RAMSEY (Waste Handling Operator (print)) Susan S. Ramsey (Signature) 100681 (Z #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90318.D
Acq On : 5 Oct 2012 1:10 pm (#1); 5 Oct 2012 1:09 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM THROUGH 19DS-UNOBSTRUCTED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 13:18:08 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	2499866	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2185870	179.50	ppm	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Oct 05 13:18:27 2012

297
12-12-12 PROJECT NAME _____ NOTEBOOK NO _____

0550 Assuming WCRR operations center JColeman
0610 Beginning outside rounds. Beginning inside rounds.
0615 Pre-job being conducted by SOS.
0624 Item #1 (PDI-012) OOS. POD in place per CSE.
0640 Outside rounds complete.
0652 Inside rounds complete.
0713 Both rounds reviewed by the SOS.
0725 Operators initiating a drum movement to stage drums.
0735 Mode change complete. We are now in Operations.
0755 Initiating a drum movement from 50-69 to a transportainer.
0809 Bagging on drum #90318. PPE check is set.
0816 Permission granted to lower the vehicle access gates to load the transfer vehicle for a shipment to Area G. The movement act of the facility complete.
0903 Vehicle access gates secured. Transfer vehicle loaded. Transportainers closed and latched.
0905 Bagging off 90318, bagging on 90713.
0924 Last entry at 0824, the bag on was complete. (1)
0926 Bag on complete.
0938 Tech 20 notified ops center that the large window on station 2 is broken. Notified SOS, SOM, entering Procedure EP-WCRR-AOP-0210 (Loss of glovebox integrity) Personnel instructed to suspend operations.
0934 The WCG static pressure reading -0.60, which is within normal range. Operators following RCT instruction.
0940 Trying to notify CSE.
0943 Contacted Engineering manager.
0945 Operators have donned respirators ~~are~~ JC 12-12-12 and are ~~taping~~ JC 12-12-12 taping the broken window.
0947 Per lead RCT, nasals will be taken.
0949 Notified OM and CSE.
0950 All non-essential personnel have exited the facility.
1000 OM notifying FOD and Project manager.
1002 ES OM notified.
1007 SOM left a message with DOE. All personnel have exited the facility.
1213 Notified by lead RCT that an operator on the forklift was moving an LB99 and swung around and knocked over an 85 ~~gallon~~ drum. Entering EP-WCRR-RM-AOP-0203 (Unanticipated loss of waste container integrity. SOS notified. An RCT immediately performed a large area smear and found no JC 12-12-12 contamination. All personnel instructed to go to a safe zone 90 ft. away. Personnel inside 50-196 instructed to stay inside.

SIGNATURE Continued on next page - JColeman 20
READ AND UNDERSTOOD _____ DATE _____ 20

0600 Assumed WCRR SOM position.

0615 Attended pre-job brief conducted by SOS. Discussed yesterdays contamination event - G Fernandez stressed to Operators/PIC's that if something is not correct i.e. loose horsetail to stop and re-evaluate. Safety short was driving/texting.

0700 Called into TA-54 SOM Daily brief to status WCRR work

0735 Completed Mode change: WCRR yard/Bldg 50-69 from Warm/Warm to Operations/Operations.

0824 1st Bag on completed.

0938 Notified by OCO that large window on Station 2 was broken during processing operations. Entered EP-WCRR-AOP-0210 Loss of Glovebox integrity.

0945 Verified WCG Static pressure is <-0.1 inwc => Not in LCO condition - actual reading -0.6 inwc which is normal reading. CAM readings are normal, no evidence of contamination. All personnel left in 50-69 in respirators and taping window.

0949 OM and CSE notified.

1007 Left message with DOE w/ status of WCG. All personnel have exited 50-69.

1110 Conducting pre-job meeting for WCG window change out. Actions items from meeting are to change RWP - has old procedure reference, Procedure change - various changes as scribing gasket Removal/Installation of Lead Glass Outer Window etc, Nasal Smear Results and enter Warm Mode in 50-69 (minimum), All items to complete change are on site w/ exception of lead window.

1210 RP-1, SOS, CSE, SOM and SME's marked up procedure and CSE delivering to Procedure Writers.

1217 Notified by OCO that while loading/moving LLW for outgoing shipment that a drum was knocked over off of a pallet onto ground. Entered into EP-WCRR-RM-AOP-0203 and established a 90 ft barrier w/ ops/RP-1 personnel No visible breach was identified and initial survey results on LAS showed no contamination. Forklift operator getting drug tested w/ ES management

1315 Detailed survey of drum/surrounding area reported as NDA. Notified DOE of event. Exited EP-WCRR-RM-AOP-0203

1325 OM called safety pause to have all personnel discuss todays events

1405 Suspended safety pause - actions to move forward are to perform inspection on forklift prior to use, make sure you have enough room to work.

1458 Drum on WCG placed in Safe configuration - lid back on drum

1602 Completed Mode Change: WCRR Yard/Bldg 50-69 from Operations/Operations to Warm/Warm.

1625 Have POD approval to leave drum on WCG overnight.

1700 Reviewed and concurred w/ changes to EP-WCRR-WO-DOP-1101

1800 Secured SOM position.

SIGNATURE DATE 12/12 20 12

12-12-12 WCRR SOS LOG Book

0600 Assuming SOS Position [signature]

0610 Started shift brief went over use off high dexterity Gloves also discussed about pulling out Gloves and installing doughnut on 55 at the end of day. also ensuring sharps are closed and In appropriate Containers

0649 Shift brief concluded.

0713 Reviewed Inside And outside Rounds

0735 Mode change Complete WCRR In operations.

0809 bagging on last drum # 90718 PPE Check Sat

0905 Bag on Complete Bagged on 90713

0938 Operators Inside notified off broken window station 2 large window notified SOM entering EP-WCRR-AOP-0210 personal Instructed to Pause work

0939 WCG Static Presure reading -0.60 which In normal

0945 operators donned respirator tapping broken window

0947 for RCT nasals will be taken on Individuals Inside

0949 notified OM And CSE

1002 notified OM E S

1213 Notified by load RCT That operator on forklift was moving Lb-99 And bumped A 85 gallon drum Containing Low level waste, Entering EP-WCRR-RM-AOP-0207 RCT's performed large area smears no contamination All personal Instructed to go to safe zone 90 Ft Away Personal Inside 50-196 Instructed to stay Inside

1217 Notified SOM, ~~SOM notified~~ GM 12-12-12

1220 No noticiable breach

1228 late entry At 1155 Recieved nasal's All NDA GM

1233 Instructed by SOM for RCTs to perform extra smears

1315 RCTs state smears on 85 Gallon drum are ndA Exiting Procedure EP WCRR-AOP-0203

1325 Entering Safety Pause Per OM

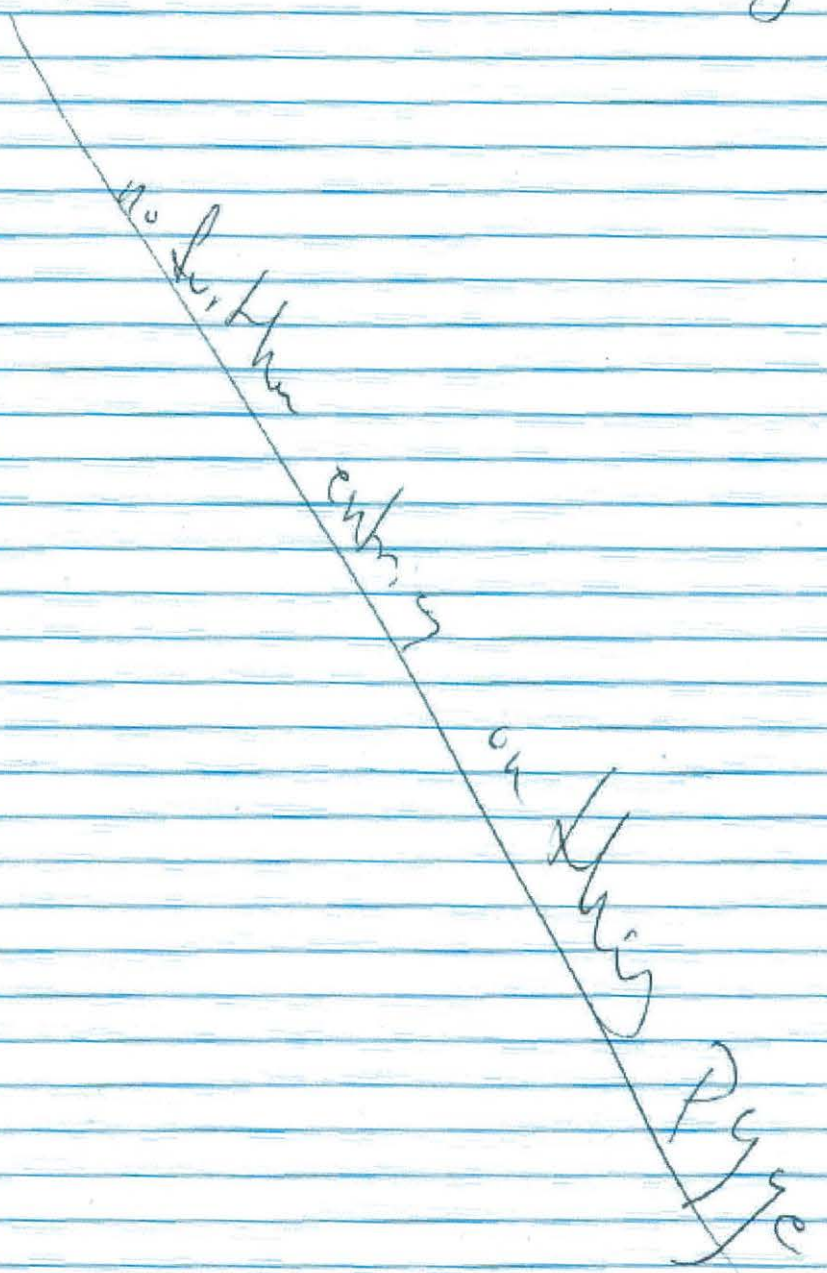
1405 Per OM waiting on Procedure change to procedure EP-WCRR-WO-DOP-1101 WCRRF WCG Maintenance

1410 Did Inspection on forklift Per SOM and myself ok to use forklift to load LLW on truck

1458 LA on Drum was replaced on facility

Continued on next page

1504	Item #61 (PDI-12) unsat
1535	Per ES ompo further fork lift operations for today
1517	Reviewed Inside And outside Rounder
1602	WCRRF In warm Standby
12/12/12 1630	end off shift securing SOS Position [signature]
119	



no further entries on this page

S910171

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0007
Examination Date:	1/17/2013
Waste Container ID:	92461
Video/Audio Recorded Media Number:	LA-RTR2-13-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 114.5 kg Tare Wt.: 33.4 kg Net Wt.: 81.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92461

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Metal lid, metal hardware
AM:	
OM:	
OI:	
C:	Fiberboard material, fiberboard insert sleeve
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):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	56.1
Soils (S):	
Total WMP Weight:	81.1

CCP Radiography Data Sheet

Waste Container ID: 92461

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 / Michael Simmons (Print Name) — Signature — 1/17/2013 (Date)

NDA 2000 Assay Report

Item Information

Item ID:	92461	Count Sequence Number:	21877		
Operator:	D3PW2DK1\operator				
Assay Start:	1/18/2013 2:01:19 PM				
Description 1:	1LANDA1699				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, Not Precision				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	81.1	kg	Net:	81.1 kg
Container:	Volume:	208.0	l	Full:	90.0 %
Density:		0.430	kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	21877	Batch Number:	1LANDA1699
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:	92461	Analysis Date:	1/18/2013

Net Weight	81100.0 g	
Pu mass	2.73E+001 +-	5.03E+000 g
TRU Alpha Activity	2.29E+000 +-	3.09E-001 Ci
TRU Activity Concentration	2.83E+004 +-	3.81E+003 nCi/g
Pu-239 Equivalent Activity	2.35E+000 +-	3.09E-001 Ci
Pu-239 FGE	2.57E+001 +-	4.72E+000 g
Decay heat	7.19E-002 +-	9.59E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.67E-002	4.05E-005	5.72E-006	2.23E-006
PU238	2.51E-003	4.34E-002	8.00E-003	3.44E-005
PU239	2.56E+001	1.61E+000	2.97E-001	1.27E-003
PU240	1.64E+000	3.76E-001	6.93E-002	2.98E-004
AM241	7.55E-002	2.62E-001	4.84E-002	2.08E-004
PU241	3.25E-002	3.38E+000	6.23E-001	2.68E-003
PU242	5.46E-003	2.17E-005	3.99E-006	0.00E+000
SR90	7.93E-009	1.09E-006	5.17E-007	0.00E+000
CS137	1.25E-008	1.09E-006	5.17E-007	4.97E-007
U233	<LLD	<LLD	0.00E+000	5.46E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.61E-006
U238	<LLD	<LLD	0.00E+000	9.65E-006
AM243	2.86E-003	5.78E-004	8.25E-005	7.44E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-29-13

ITR: _____ Date: 1/29/13

Automated Independent Technical Review

Count Sequence Number: 21877 Batch Number: 1LANDA1699
Counter ID: MCS HENC #1
Container ID: 92461
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. 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: Shein Chamberlain Date: 1-22-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92461**

BDR Number: **LA13FG8008**

Sampling Date: **2/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	110.59	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130201c\
Data File : 92461.D
Acq On : 1 Feb 2013 10:46 am (#1); 1 Feb 2013 10:45 am (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 10:54:08 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.256	96	2332046	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2091408	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.312	GC1	27326m	110.59	ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed