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NMED
Hazardous Waste Bureau

Los Alamos
NATIONAL LABORATORY
EST. 1943

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

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

Date: OCT 0 8 2014
Symbol: ENV-DO-14-0289
LAUR: 14-27304
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 18

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 eighteenth submittal in response to comment 5 in the June 10, 2014 email request. Because documentation to fulfill the request is still being compiled, the response to comment 5 of the email request will be transmitted in packages as they become available.

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

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

Sincerely,

A R Gueggs for

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

Sincerely,

Gene E Turner

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 18

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

Cy (continued):
Selena Z. Sauer, LC-ESH, (E-File)
Kenneth M. Hargis, LTP-PTS, (E-File)
Mark P. Haagenstad, ENV-CP, (E-File)
Luciana Vigil-Holterman, ENV-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
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Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 18
ENV-DO-14-0289
LA-UR-14-27304

October 2014

Los Alamos
NATIONAL LABORATORY
EST. 1943

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 18

ENV-DO-14-0289

LA-UR-14-27304

Date: OCT 0 8 2014

ParentID	Intermediate Daughters	PKG_ID	Overpacked Into
S871844	90936	92251	
S871844	90936	92252	
S871844	90937	92351	SB01933
S873554	68734	69033	SB50063
S873554	68734	69034	SB50027
S873554	68734	69036	
S881562		90999	
S881562	91004	92166	
S881562	91000	92206	SB02028
S881562	91001	92378	
S881562	91002	92890	
S881562	91003	92915	
S881563		91006	
S881563	91008	92175	
S881563	91009	92898	
S881563	91010	92900	SB50061
S881563	91011	92902	
S881563	91007	92909	
S881569	90991	92380	
S881569	90988	92896	
S881569	90987	92907	
S881569	90989	92913	
S881569	90990	92921	
S881569	90986	93487	
S881570		68397	
S881570		68451	
S881570		68461	SB02097

S871844

S871844

Container Profile 764019

File Options Reports Help

S871844

764019	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

S871844

- S871844
  - 90938– EMPTY
  - 90937
    - 92352– EMPTY
    - 92351
      - SB01933
  - 90936
    - 92253 – EMPTY
    - 92252
    - 92251

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99947775	%			

Working Copy
Date: 2-15-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 871894

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: Edwin Rios, Edwin Rios 188827 2-15-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 361.8 lb
0

6.2[5][A] Parent Drum Lead Blanket Weight (lb): ~~120~~ lb
E.Rios 2-15-12

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S871844

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 361.8 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90936	90937		
10.1[4]	Daughter Drum Filter No.	LL-1268			N/A
10.1[4]	Daughter Drum Bag Filter No.	LL-102		N/A	
10.1[4]	Daughter Drum Purchase Order No.	415090			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer		NUCFIL		
	Model No.		036		
	Serial No.		LL-224		
	Date of Manufacture		1211		
10.2[5]	POC ID No		90937		
10.2[7][B]/10.2[6]	POC Item Description	N/A	Salts, Plastics absorbent		
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.		LL-224		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		E.R.Ios 187822		
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		None		
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead shielding 55 gallon liner	Lead shielding 55 gallon liner		
10.3[5][A]	Free Liquid Volume/Units	none	3 gallons		N/A
10.3[9][A]	PCB-contaminated Waste Description		none	N	
10.3[9][B]	PCB Item ID No.		none		
10.3[10]	Remaining Waste Description	Salts, Plastics	Salts, Plastics		
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	75%	75%		
10.5[4]	Description Waste Added During Processing	Cheese cloth, Absorbent	Cheese cloth, Absorbent		

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S871844

Comments: Salts, plastic, lead shielding, liquid about 3 gallons of liquid when liner opened.

11.1[1] Performed By: Eddie Rios | Eddie Rios | 187822 | 12-15-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Anthony Vigil | Anthony Vigil | 184869 | 12-23-12 0805
SOS/SOM (print) Signature Z # Date/Time

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

85-Gallon Overpack ID Number 90938

RECORD Drum Filter information:	N6CFFL
Filter ID Number:	
Date of Manufacture:	

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	038373
Cal Expiration Date	N/A	Cal Expiration Date	5/30/12
			+-30/ocw
Tolerance		Tolerance	+-60/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) 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	L.Ruy	187822	2-15-12
DON Pacheco	Don Pacheco	DP	1240012	02-15-12

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

Drum ID#: 90936

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: 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 #: 030-DR-PVC
- Serial #: LL-122
- Date of Manufacture: 12-11

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

- Manufacturer: NUCFIL
- Model #: 019DS
- Serial #: CL-1368
- Date of Manufacture: 3-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	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.

☑ Yes ☐ No

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

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: 2-13-12
Verifier Print:	Eddie Rios	Verifier Sign:	[signature]	Z#: 187822	Date: 2-15-12

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

DRUM ID#: 90936

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 #: 038323

Cal expiration date: 5-30-12

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

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

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 373.2

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: Eddie Rios Date: 2-15-12

Verifier Print/Sign: Don Pacheco Date: 02-15-12

SP13

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S871844 Container Type: 85-GAL Gross Weight (lbs): 364
Inner Seal #: 023958 Filter Prefix: LAVC Filter Serial #: 02962; 06209
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 RM#434 A02037
Total PE-Ci Activity: 3.65E+00 Equivalent Combustible PE-Ci: 1.37E+00 AM-241 PE-Ci: 2.97E-01
Total Fissile Gram Equivalents: 40.3 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/12/2007 Comment: Impenetrable Obj,
Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☑ VE ☐ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones (Production Control (Print)) / R.W. Jones (Signature) / 117434 (Z Number) / 10.28.10 (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: Solid waste record indicates leached solids in form of nitrate salts. 10 items, heaviest item is 11Kg (24 lbs); net weight of 10 items is 89kg (196 lbs). May require RWP for >100 and <1,000 mrem/hr @ 30-cm.

Performed By: Michael Garcia (WDP Engineering (Print)) / Michael Garcia (Signature) / 095143 (Z Number) / 11/11/10 (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: C. V. Velarde (TRU Remediation Operations (Print)) / C.V. Velarde (Signature) / 234079 (Z Number) / 12/2/10 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 023958

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	1DS21WS1		17.850	NITRATE SALTS	R00	11.54	52	1/13	G468
2	1LR26ES1		10.600	NITRATE SALTS	R00	1.63	52	1/13	G468
3	10X27WS1		11.450	NITRATE SALTS	R00	5.62	52	1/13	G468
4	2DS5WS1		7.750	NITRATE SALT	R00	4.29	52	1/13	G468
5	20X3WS1		6.190	NITRATE SALTS	R00	9.29	52	1/13	G468
6	12DS30ES1		10.730	NITRATE SALTS	R00	1.49	52	1/13	G468
7	20X25ES1		7.950	NITRATE SALTS	R00	2.77	52	1/13	G468
8	2LR23ES1		4.980	NITRATE SALTS	R00	4.55	52	1/13	G468
9	3LR3WS1		4.490	NITRATE SALTS	R00	1.13	52	1/13	G468
10	3LR4ES1		6.700	NITRATE SALTS	R00	0.55	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 165.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	42.86	88.69
Totals	42.86	88.69

1911153 4

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 10.26.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	1237975	10-28-10
	/	/	/

Container No. (7.[1]):	S902123	S871844	S860083
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]):	S902123	S871844	S860083
Hydrogen Reading (ppm) (7.[10]):	Ø ppm	1224.6 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 10-27-10
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 117886 11.4.10
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101026c\
Data File : S871844.D
Acq On : 26 Oct 2010 3:03 pm
Operator : EL
Sample :
LastName : Unit 8
Misc : 55GAL LFL DRUM FROM INSIDE 85GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 26 15:11:26 2010
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.246	96	6214625	209.00	ppm	0.00
15) Chlorobenzene-d5	5.930	117	5150676	184.00	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.317	GC1	292430m	1224.66	ppm	

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

Vocgas.m Tue Oct 26 15:11:32 2010

2-15-12 PROJECT NAME _____ NOTEBOOK NO. _____

0600 Assuming WCRF operations center. JColeman
0612 Beginning outside rounds.
0615 Beginning pre-job brief.
0642 Beginning inside rounds
0637 Outside rounds complete.
0721 Item #60 is OOS on the rounds. Per CSE, we are okay to proceed.
0726 Inside rounds complete.
0730 Rounds completed and reviewed by SOS.
0735 Mode change complete. We are now in operations.
0748 Bagging on drum #5863696.
0845 Notified by SOS that operators relayed to him that the drum they have opened contains at least 7 to 10 gallons so far without pulling any packages out yet. More absorbent being taken inside 50-169.
0922 Initiating a drum movement from transportainer to the transfer vehicle for a shipment to Area G. Permission granted to deliver vehicle access gates.
1005 Vehicle access gates restored. Transfer vehicle loaded. Transportainers secured.
1025 Bagging off 5863696 and 3 POC's, bagging on ~~5863987~~. JC 2-15-12 5871844. They could not get the bag off of 5863787.
1139 Bagging off 5863787 and 1 POC, bagging on 5863788.
1202 Bnd off and mgmt complete. Exiting facility for lunch.
1320 Shift turnover brief with CO. Clarissa Velarde-JColeman
1320 Assuming WCRF Operations center - CVelarde
1333 Operators on pause due to liquid on box having a ph of 3-4
1340 Starting movement out of 50-169 to transportainer
1403 movement complete out of 50-169
1430 Operator notifying OPS center that they will be introducing nutrilizer through introductory port.
1442 Completed introduction of nutrilizer with contents processing drum.
1519 Operator notifying OPS center of hairline crack on lead window
1520 Starting outside rounds ~~ROUNDS~~ CV 2-15-12.
1530 Starting movement from transportainer to 50-169.
1538 Outside rounds completed.
1543 Starting bag off of 5863788 and 2 POC's
1545 Movement completed into 50-169
1548 Starting inside rounds
1610 Item #60 on rounds is OOS. Per CSE documentation OK to proceed
1630 Mode change performed we are now in Warm. Ops secure. CV. CVelarde

no further entries this page.

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

PROJECT NAME 2-15-12 NOTEBOOK NO.

0600 Assumed the WCRR SOM position and reviewed the previous shift activities. Janiece D'Marnay

0615 Pre-job brief conducted by shift operations supervisor. SOM discussed lessons learned from WCG High High Alarm and the use of the introductory port. SOM also discussed the importance of locking up all builders buildings at the end of shift. @2-15-12

0640 Morning call in with FOD. Issues to discuss is lack of attention to detail and watch out for each other. Discuss all near misses and discuss any procedure changes to using the introductory port.

0725 Discussed solution package #70 with production control. Issues identified all no more than one drum at a time can be brought up to WCRRF due to PECI and a stationary fire water needs to be established on the WCG. RP-1 will have to evaluate the use of glovebags used inside the WCG.

0735 Mode change complete. WCRR YARD and 50-69 from WARM mode to OPERATIONS.

0845 Notified by OCD that first drum of the day contains approximately 7 to 10 gallons.

1233 Notified by OCD that liquid on box for drum contains a pH of 3-4 operators waiting on neutralizer.

1430 @2-15-12 1440 Operators will be introducing neutralizer by introductory port.

1519 OCD notified of a hairline crack on small inner lead lined window. No dose required to be entered. Glovebox wasn't breached.

1030 Mode change complete: WCRR YARD and 50-69 from OPERATIONS to WARM

1040 Securing the watch. Janiece D'Marnay

No further Entries

SIGNATURE Janiece D'Marnay DATE 2-15 20 12

READ AND UNDERSTOOD DATE 20

251

PROJECT NAME WCRR SOS LOG-BOOK NOTEBOOK NO.

2-15-12

0600 REVIEWED SOS TURNOVER ASSUMING SOS POSITION. Anthony [illegible]

0615 PRE-JOB OPERATORS ON PROCESSING, DRUM MOVEMENTS, SHIPMENTS, ARTIC OP'S, AND TALKED ABOUT NOT USING THE INTRODUCTORY PORT DUE TO POSSIBLE ALARMS. WE ALSO DISCUSSED NEAR MISSES IN OUR AREA AS WELL AS IN OTHER AREA'S PER FOD.

0700 PRE-JOB CONCLUDED

0730 REVIEWED INSIDE AND OUTSIDE ROUNDS

0735 MODE CHANGE COMPLETE FROM WARM TO OPERATIONS IN YARD AND BUILDING

0748 BAGGING ON FIRST DRUM

0845 Drum Operators are processing has 10 gallons of liquid.

1333 Operators paused due to liquid on box having a ph of 3-4

1436 Operators introducing absorbent & neutralizer through introductory port.

1442 Using introductory port complete

1519 Notified of a hair line crack on inner window.

1630 Mode change complete

1633 Reviewed Rounds

1640 End of shift Securing WCRR SOS Position. [illegible]

No Further Entries On this Page

SIGNATURE _____ DATE _____ 20 ____

READ AND UNDERSTOOD _____ DATE _____ 20 ____

UET ~~Working Copy~~
Date: 10-25-12

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: 10-25-12

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-2013

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 / B. Gallegos / 267129 / 10-25-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT I
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	70936
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	373.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	123.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	496.2 lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

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

UET Working Copy

Date:

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90936

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92251	92252		
10.1[4]	Daughter Drum Filter No.	AM-849	AM-779		
10.1[4]	Daughter Drum Bag Filter No.	L-4230	L-3720	N/A	
10.1[4]	Daughter Drum Purchase Order No.	416265	416184		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)			N/A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%	90%	N/A	
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER STUB OUT BAGS	KITTY LITTER STUB OUT BAGS		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90936

Comments: PLASTIC, SALTS, KITTY LITTER, LEAD

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 / 10-25-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: JOSE JEREZ / [signature] / 122145 / 10-26-12 0512
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-23-12

Working Copy
Date:

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: EJ-364
Manufacture Date: 5-09

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

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

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

Performed By: Steven Mondragon / Steven Mondragon 10-23-12
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/C

8.1[1] Performed By: Steven Mondragon / Steven Mondragon 10-23-12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Jose Jerez / Jose Jerez 10-26-12
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-25-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92253 BB 10-25-12

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 040329
- Cal. Expiration Date: 3-15-2013
- Range in ft-lb: 14-80
- 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] 10-25-12
Waste Handling Technician (print) Signature Z# Date

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

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

7.[36][B] Platform scale serial number: 0190645
Platform scale calibration expiration date: 7-31-2013

7.[36][D] 85-gal overpack drum gross weight (lb): 176.2 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] 10-25-12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Jose Perez / [signature] 10-26-12
Supervisor or designee (print) Signature Z# Date

Working Copy

Date: ~~10-18-12~~

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

Drum ID#: 972251

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: POF
Model #: GCW 1.5-2 STVL
Serial #: L-48-30
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 #: 01215
Serial #: RM-B49
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	022614	M&TE ID #:	021151
Cal Expiration Date:	10-19-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

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

[x] Yes [ ] No

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

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs): 76.0
File ID #: 019005

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

6. Label Drum Assembly

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

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

Operator Print: Eddie Rios Operator Sign: [signature] Z#: 187822 Date: 10-18-12

Verifier Print: BRIAN GALLEGOS Verifier Sign: [signature] Z#: 247129 Date: 10-25-12

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

DRUM ID#: 92251

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: 3-15-2013

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

— Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 323.2

Scale ID#: 019045

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: BRIAN GALLEGOS Date 10-25-12

Verifier Print/Sign: [illegible] Date: 10-25-12

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

Drum ID#: 92252

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 #: 416 184
Lot #: 279224
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 #: ecpul 1.5-25pu-c
Serial #: L-3720
Date of Manufacture: 12-12

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 #: a19 D9
Serial #: AM-779
Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 046694
Cal Expiration Date: 9-26-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: ±4% cw 2% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 022151
Cal Expiration Date: 10-11-13
Range (ft-lbs or in-lbs): 16-80
Tolerance: ±3% cw ±4% 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] ZR: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.2
File ID #: 019045

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

6. Label Drum Assembly

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

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

Operator Print: Michael Romero Operator Sign: [signature] ZR: 182723 Date: 10-23-12
Verifier Print: BRIAN GALLEGOS Verifier Sign: [signature] ZR: 267129 Date: 10-25-12

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

DRUM ID#: 92252

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 press.

✓ Tighten jam nut

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3-15-2013

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): 228.2

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: BRIAN GALLEGOS [signature] Date: 10-25-12

Verifier Print/Sign: Steven Mondragon [signature] Date: 10-25-12

72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90936 Container Type: 55-GAL Gross Weight (lbs): 373

Liner Seal #: None Filter Prefix: None Filter Serial #: CL-1368

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

TWSR Comments: PARENT #S871844

Total PE-Ci Activity: 1.83E+00 Equivalent Combustible PE-Ci: 6.85E-01 AM-241 PE-Ci: 1.48E-01

Total Fissile Gram Equivalents: 20.2 Total Surface Dose Rate (mrem/hr): 25

EPA Code(s): D008 D007 D009 pr 10/9/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/27/2012 Comment: Impenetrable, S3000

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

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

TRUCON Code: 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 must be mixed with 1:0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan B. Ramsey Z Number: 100681 Date: 9/4/12

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: 304 lb

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 1126089 Date: 10/10/12

TRU Remediation Operations

Valerie Rhodes

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

Other Specific Safety Concerns: Use proper PPE when processing waste. Use Hexarmour gloves during processing. 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: Jane Jorez (TRU Remediation Operations (Print)) Signature: Jane Jorez Z Number: 1221452 Date: 10-11-12

OK Z#249750 10/15/12

IHS REVIEW: AB 206362 10.11.12

Reverified TRU Waste Drum Item Information

DrumID: 023938

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	HT	Auth (Pg/Lo)	Comments
1	1NH21N01		17.890	NITRATE SALTS	800	11.34	52	1/13	0468
2	11R24A01		10.600	NITRATE SALTS	800	1.69	52	1/13	0468
3	1NH27N01		11.630	NITRATE SALTS	800	5.62	52	1/13	0468
4	2NH3N01		7.790	NITRATE SALT	800	4.39	52	1/13	0468
5	2NH3N01		6.190	NITRATE SALTS	800	9.29	52	1/13	0468
6	1NH5ONR1		10.730	NITRATE SALTS	800	1.69	52	1/13	0468
7	2NH25N01		7.950	NITRATE SALTS	800	2.77	52	1/13	0468
8	2NH23N01		6.900	NITRATE SALTS	800	4.93	52	1/13	0468
9	31R3N01		4.480	NITRATE SALTS	800	1.13	52	1/13	0468
10	3NH4N01		6.700	NITRATE SALTS	800	0.52	52	1/13	0468

Reverified Waste Drum Material Summary

Gross Wt (kg): 169.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	42.84	88.60
Totals	42.84	88.60

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])	90936					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19 DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: 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 (Waste Handling Operator (print)), Susan B. Ray (Signature), 100681 (Z #), 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90936.D
Acq On : 5 Oct 2012 3:22 pm (#1); 05-Oct-12, 15:21:3[illegible] (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed Sig #1 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 15:30:23 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	(v Min)
Internal Standards						
3) Fluorobenzene	3.636	96	6250481	201.2[illegible]	ppmv	0.10
15) Chlorobenzene-d5	5.946	117	5576795	177.00	ppmv	0.07

Target Compounds						value

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

PROJECT NAME

10-25-12

0000 Assuming WCREF operations center - cleared
0001 Starting inside and outside rounds
0005 BACK sampling complete
0638 Inside and outside rounds complete.
0700 Inside and outside rounds completed by SOS.
0717 Mode change performed TA50-69 and WCREF yard now in operations.
0744 Bag on 90899
0751 ~~0848~~ Bag on is complete.
0813 Starting movement to transport vehicle
0829 Permission granted to lower vehicle gates.
0910 movement to transport vehicle is complete, vehicle access gates have been restored
0915 Starting movement out of 50-69
0923 movement out of 50-69 complete.
0927 bagging off 90899 and (2 daughters) bagging on 91013.
0956 bag on is complete.
1150 bagging off 91013 and 2 daughters bagging on 90936
1217 bag on complete
1335 Permission granted to lower vehicle access gates to unload drums from transport vehicle
1354 Bag off is complete.
1411 Starting inside rounds.
1415 Starting to unload transport vehicle
1450 off loading of transport vehicle is complete. Vehicle access gates have been restored.
1451 Starting movement out of 50-69. Completed inside rounds.
1459 Starting outside rounds.
1500 movements are complete.
1502 Outside rounds complete.
1520 late entry at 1510 mode change performed. TA50-69 is in cold and WCREF yard in warm mode CC.
1550 CSE going into 50-69 to perform 6.31 ~~to perform~~ 10-24-12. CSE will be going to the roof thru the puggaire roof hatch SOM has given him permission
1604 while CSE was performing check on roof, alert beacon cleared for high pressure alarm.
1615 operator has completed visual check. alarm has been acknowledged. SSE has completed his checks of bldg.
1630 end of day WCREF operations center secure - cleared
HG

no further entries

DATE 20 20

PROJECT NAME 10/25/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position.

0615 Attended pre job brief conducted by SOS. Discussed using introductory port, how to access dose records, preparations for cold weather.

0717 Completed mode change; WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0845 CSE for Bldg 50-69 Integrity after discussing w/ IH will check roof integrity by accessing thru Bldg 69 mezzanine hatch.

0940 Released W.O. # 438157-01 50-54 (A) CAE-001 Shutdown

1000 Emerged ISI 6.3.1 w/ scheduling to perform this afternoon.

1030 Attended team meeting conducted by OM. Discussed plan to take both Bldg 50-69 and WCRR yard to Cold on 10/15/12 to 11-20-12 for maintenance.

1510 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.

1550 CSE is on site to complete ISI 6.3.1 Building Integrity Inspection. Allowing access thru mezzanine hatch for limited time. RP-1 completed survey @ hatch and identified no contamination.

1604 As expected received Bldg High pressure alarm on Allen Bradley due to hatch being opened.

1615 Operator ~~[illegible]~~ acknowledged alarm after CSE completed inspection and closed hatch. Building pressure back to normal as reported by operator.

1630 Secured SOM position

LD
11-5-12

No further entries this page

SIGNATURE DATE 10/25 20 12
READ AND UNDERSTOOD DATE 20

10-25-12 WCRR 505 Log Book

0600 Assuming 505 position for the day. Jim Jy

0605 Starting Pre-Job brief. Discussed not being Complacent follow procedures and stay focused. 1 shipment out and 1 shipment in. Processing waste, possibly taking SWB's in to load salvage 55 gallon drums. Housekeeping at the end of the day. Need to be in Cold by the end of the day for maintenance tomorrow. Talked about Cold weather, will need to start putting the eye wash indoors. Talk to the CSE to ensure all boilers are operating normal so that temperature stays above operating limits of 60°.

0700 Signed off on inside and outside rounds

0717 Mode Change. 50-69 and Yard are now in Operations.

0744 Bagging on first drum

1454 Inside rounds signed off

1510 Mode Change Complete. WCRR Stand by in the yard Cold Stand by in 50-69.

1540 Signed off on outside rounds

1550 CSE going into 50-69 to finish building integrity surveillance last time he was here he didn't complete the roof

1604 Notified of alarm inside of 50-69. Possibly because of roof hatch being opened

1615 Operator 39 notifying that alarm is for high pressure alarm. Ventilation readings are all normal. CSE has completed his inspection.

10-25-12 1625 Securing 505 position for the day. Jim Jy.
Jt Log

No further entries on this page

CCP Radiography Data Sheet

5871881

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0130
Examination Date:	12/20/2012
Waste Container ID:	92251
Video/Audio Recorded Media Number:	LA-HERTR-12-0130 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 149.0 kg Tare Wt.: 33.4 kg Net Wt.: 115.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	60 %

CCP Radiography Data Sheet

Waste Container ID: 92251

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic sheeting, plastic liner, plastic lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	105.1
Soils (S):	
Total WMP Weight:	115.6

CCP Radiography Data Sheet

Waste Container ID: 92251

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

RTR Operator:

Dennis Powell		12/20/2012
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92251	Count Sequence Number:	21764
Operator:	D3PW2DK1\operator		
Assay Start:	1/3/2013 2:11:53 PM		
Description 1:	1LANDA1690		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 119.0 kg	Net:	119.0 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.950 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:	21764	Batch Number:	1LANDA1690
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:	92251	Analysis Date:	1/3/2013

Net Weight	119000.0 g		
Pu mass	6.43E+001	+-	1.25E+001 g
TRU Alpha Activity	1.46E+001	+-	5.53E+000 Ci
TRU Activity Concentration	1.23E+005	+-	4.65E+004 nCi/g
Pu-239 Equivalent Activity	1.48E+001	+-	5.53E+000 Ci
Pu-239 FGE	6.07E+001	+-	1.17E+001 g
Decay heat	4.78E-001	+-	1.84E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.59E-001	1.14E-004	2.52E-005	4.80E-006
PU238	5.92E-003	1.02E-001	1.99E-002	3.44E-005
PU239	6.04E+001	3.80E+000	7.38E-001	1.27E-003
PU240	3.86E+000	8.87E-001	1.72E-001	2.98E-004
AM241	2.83E+000	9.84E+000	5.48E+000	1.06E-001
PU241	7.68E-002	7.99E+000	1.55E+000	2.68E-003
PU242	1.29E-002	5.11E-005	9.93E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.53E-006
U233	<LLD	<LLD	0.00E+000	1.10E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.10E-006
U238	<LLD	<LLD	0.00E+000	2.59E-005
AM243	7.18E-003	1.45E-003	3.25E-004	1.53E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-8-13

ITR: _____ Date: 1.9.13

Automated Independent Technical Review

Count Sequence Number: 21764 Batch Number: 1LANDA1690
Counter ID: MCS HENC #1
Container ID: 92251
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/3/2013

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: 1-7-13

Waste Container ID: **92251**

BDR Number: **LA13FG8001**

Sampling Date: **1/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130115c\
Data File : 92251.D
Acq On : 15 Jan 2013 1:33 pm (#1); 15 Jan 2013 1:32 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 15 13:44:23 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	2535083	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2195576	179.50 ppm	0.00

Target Compounds	Qvalue

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

CCP Radiography Data Sheet

5871844

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0040
Examination Date:	3/8/2013
Waste Container ID:	92252
Video/Audio Recorded Media Number:	LA-RTR2-13-0040 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 92252

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.1
Soils (S):	
Total WMP Weight:	70.1

CCP Radiography Data Sheet

Waste Container ID: 92252

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

RTR Operator:

Michael Simmons		3/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92252	Count Sequence Number:	15244
Operator:	DCLTD231\Operator		
Assay Start:	3/11/2013 1:51:31 PM		
Description 1:	2LANDA1115		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 70.1 kg	Net:	70.1 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.560 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:	15244	Batch Number:	2LANDA1115
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92252	Analysis Date:	3/11/2013

Net Weight	70100.0 g		
Pu mass	9.72E+000	+-	1.88E+000 g
TRU Alpha Activity	2.90E+000	+-	1.17E+000 Ci
TRU Activity Concentration	4.14E+004	+-	1.67E+004 nCi/g
Pu-239 Equivalent Activity	2.93E+000	+-	1.17E+000 Ci
Pu-239 FGE	9.18E+000	+-	1.77E+000 g
Decay heat	9.54E-002	+-	3.92E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.25E-002	2.32E-005	3.77E-006	8.51E-007
PU238	8.93E-004	1.55E-002	2.99E-003	3.64E-005
PU239	9.13E+000	5.74E-001	1.11E-001	1.35E-003
PU240	5.83E-001	1.34E-001	2.60E-002	3.16E-004
AM241	6.28E-001	2.18E+000	1.17E+000	3.24E-002
PU241	1.15E-002	1.20E+000	2.32E-001	2.82E-003
PU242	1.95E-003	7.73E-006	1.50E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.76E-007
U233	<LLD	<LLD	0.00E+000	4.33E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.27E-006
U238	<LLD	<LLD	0.00E+000	8.24E-006
AM243	1.81E-003	3.66E-004	5.96E-005	5.89E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 3-15-13

ITR: _____ Date: 3-18-13

Automated Independent Technical Review

Count Sequence Number: 15244 Batch Number: 2LANDA1115
Counter ID: HENC #2
Container ID: 92252
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/11/2013

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

Expert Review by: Sheri Chambers Date: 3-12-13

Attachment 4 – Flammable Gas Analysis Form

5871844

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

Waste Container ID: **92252**

BDR Number: **LA13FG8018**

Sampling Date: **3/14/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	97.06	
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	4.53	
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130314c\
Data File : 92252.D
Acq On : 14 Mar 2013 12:16 pm (#1); 14 Mar 2013 12:15 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 12:24:08 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	3.259	96	2281841	206.00 ppm	0.00
15) Chlorobenzene-d5	5.939	117	2071664	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.313	GC1	23981m	97.06 ppm	
17) Toluene	4.779	92	21664	4.53 ppm	96

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

29

Work ~~HP~~ MET Copy
Date: 11/8/12 cm

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90937

6.2[4] Date Processed: 11/8/12

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

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

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

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

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

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

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

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

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

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

Performed By: Michael Romero [signature] 182723 11/8/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90937

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 349.2 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 349.2 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.: 90937

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92351			
10.1[4]	Daughter Drum Filter No.	JL-1317		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-3738			
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		N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	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	Stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90937

Comments: plastic, salts, bolts, metal lid, Kitty litter

11.1[1] Performed By: Michael Romero Michael Romero 182723 11/8/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez [illegible] 132452 11-10-12 0824
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.: 211926
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: nucfil
Model No.: 013
Serial No.: HL - 808
Manufacture Date: 8-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	046694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Michael Romero Michael Rom [illegible] 10-16-12
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/C

5.[11] Performed By: Michael Romero Michael Rom [illegible] 10-16-12
Waste Handling Technician (print) Signature Z# Date

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

Reviewed By: Jose Jerez [illegible] [illegible] 11-10-12
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 11/8/12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92352

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: Michael Romero Michael Romero 1182723 11/8/12
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): 330.0 lb

Comments: NA

8.1[1] Performed By: Michael Romero Michael Romero 1182723 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: Jose Perez [signature] 1224521 11-10-12
Supervisor or designee (print) Signature Z # Date

~~JET 11-8-12~~

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

Drum ID#: ~~92543~~ 92351

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 #: 222224
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: DOP
Model #: 0500 1.5-2 SPC
Serial #: L-3728
Date of Manufacture: 1112

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 #: 0100D
Serial #: JL-1317
Date of Manufacture:

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	9-20-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% rdg ±6% rdg	Tolerance:	±3% rdg ±6% rdg

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 ZR: 186723

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 76.0
File ID #: 0M065

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

6. Label Drum Assembly

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

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

Operator Print: Michael Romero Operator Sign: Michael Romero ZR: 186723 Date: 11-8-12

Verifier Print: Michael Romero Verifier Sign: [illegible] ZR: [illegible] Date: 11/8/12

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

DRUM ID#: 92351

1. LID INSTALLATION

NOTE: Install lid per manufacture's instructions.

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3/15/13

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

--- Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

✓ 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): 2026

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 [signature] Date: 11/8/12

Verifier Print/Sign: [signature] Date: 11/8/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90937 Container Type: POC Gross Weight (lbs): 356
Liner Seal #: None Filter Prefix: None Filter Serial #: EL-389; EL-458
WK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S871844 WTS-12STD-900
Total PE-Ci Activity: 1.83E+00 Equivalent Combustible PE-Ci: 6.85E-01 AM-241 PE-Ci: 1.48E-01
Total Fissile Gram Equivalents: 20.2 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 VR/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 of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts
Performed By: Susan Ramsey 000681 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: 46 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 112609 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 Kevlar gloves when processing waste. Do not pack 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

OK Z # 249750 10/9/12

IHS REVIEW RB 206362 10.3.12

Noncertified TRU Waste Drum Item Information

DrumID: 022950

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Lm)	Comments
1	1RR21581		17.850	NITRATE SALTS	R00	11.56	52	1/13	0468
2	1LR26581		10.600	NITRATE SALTS	R00	1.83	52	1/13	0468
3	1RR27581		11.450	NITRATE SALTS	R00	5.82	52	1/13	0468
4	2RR9581		7.750	NITRATE SALT	R00	4.29	52	1/13	0468
5	2RR3581		6.180	NITRATE SALTS	R00	9.29	52	1/13	0468
6	1RR6581		10.730	NITRATE SALTS	R00	1.49	52	1/13	0468
7	2RR29581		7.950	NITRATE SALTS	R00	2.77	52	1/13	0468
8	2LR21581		6.986	NITRATE SALTS	R00	4.55	52	1/13	0468
9	3LR3581		4.490	NITRATE SALTS	R00	1.13	52	1/13	0468
10	3LR4581		6.700	NITRATE SALTS	R00	0.55	52	1/13	0468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 168.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	42.86	88.59
Totals	42.86	88.59

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])	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])	194.05 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)), 238066 (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 RAMSEY (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 10/3/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90937.D
Acq On : 28 Sep 2012 2:50 pm (#1); 28 Sep 2012 2:49 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: Oct 03 14:25:11 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	2409735	206.00 ppm	0.00
15) Chlorobenzene-d5	5.940	117	2125638	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.316	GC1	47947m	194.05 ppm	

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

Vocgas.m Wed Oct 03 14:25:18 2012

11-8-17

0600 Assuming WCRRF Operations Center - Overlands

0601 Started inside rounds, stack sampling being performed.

0633 performing shift turnover with Terri Coleman - Overlands

0634 Assuming WCRRF Operations Center - Overlands

I will have Clayton Mullen training under my direction. (JC)

0650 Assuming WCRRF Operations Center training under Terri Coleman (JC)

0651 Late entry at 0605 stack sampling was completed. (JC)

0651 Late entry at 0610 Outside Rounds completed (JC)

0651 Late entry at 0642 Inside Rounds completed (JC)

0651 Late entry at 0645 both rounds reviewed by SOS. (JC)

0702 Mode change performed TA-50-69 and WCRRF yard in Operations

0722 Starting movement out of 50-69

0737 Completed movement out of 50-69.

0738 Starting shipment out of WCRRF. Permission granted to lower vehicle access gate.

0741 bagging on 90869.

0755 bag on complete.

0931 bagging off 90869 and bagging on 90867.

0906 Shipment complete, vehicle access gate restored, and transportain closed and latched.

0902 bag on complete.

0951 bagging off 90867 and bagging on 90876

1014 Starting movement into 50-69.

1021 bag on complete.

1034 Movement into 50-69 complete.

1108 starting movement out of 50-69.

1115 Movement out of 50-69 complete.

1121 Bagging off 90876 and bagging on 90868

1158 Bag on complete.

1220 Bagging off 90868 and bagging on 90838.

1240 Bag on complete.

1321 bagging off 90838 and bagging on 90878.

1340 Bag on complete.

1408 Bagging off 90878 and bagging on 90937

1410 Starting movement out of 50-69

1425 Movement out of 50-69 complete

1425 Bag on complete.

1430 Starting Outside Rounds.

1454 completed Outside Rounds.

1457 Late entry at 1415 Started Inside Rounds. (JC)

1504 Late entry at 1440 Completed Inside Rounds. (JC)

1505 Bagging off 90937.

1510 Both rounds reviewed by SOS.

continued on next page (JC)

11-8-12

0600 Assumed the WCRR SOM position. Genevieve S. Mer[illegible] 2
0615 Attended pre-job briefing conducted by SOS. Discussed RCRA concerns brought up on 11-7-12 with operators. Discussed upcoming maintenance. Discussed SP#57 and going into SP#72.
0702 Mode change complete. WCRR YARD | 50-69 from WARM | WARM to OPERATIONS | OPERATIONS.
0741 Just drum of the day bagged on.
0742 Walked down OC steps last of 50-84 with OM and Energy Solutions IH. Caution tape was placed around problem area.
0800 SOM working with operations of de-inventory of WCRR footprint.
1035 Team meeting on drum disposition project. Discussed WCRR/DVS work being performed. Discussed upcoming maintenance. Deficiencies identified for DVS. 12:
1200 WCRRF/DVS DOP Daily Call in to discuss goals, work being performed and any issues encountered.
1335 Notified by RP-1 that two waste coordinators were inside the LLW storage area without requesting RCT support. RP-1 verified that at least one of the individuals had FERPER training, therefore it is not an RPO. RP-1 will brief operations on 11-13-12 on the importance of ensuring other support groups have proper training before entering rad areas. SOM and SSW will also follow up on how other support groups, such as laundry folks are following procedure when entering LLW area.
1440 SOM followed up with CSE on USQ Evaluation of WEF 12-008. CSE will call SOM when evaluation is complete.
1545 Inventory Control completed TWSR's for TRU drums requiring transfer to area 9 to support WCRR COLD standby.
1548 WCRR processed 10 parent drums producing 7 daughters.
1550 Mode change complete. WCRR YARD | 50-69 from OPERATIONS | OPERATIONS to WARM | COLD.
1630 Securing the SOM position. Genevieve S. Mer[illegible]

No further entries this page.

Genevieve S. Mer[illegible] 11-8 12

11-8-12 WCRK SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0615 Conducted Shift brief.

0638 Concluded Shift brief

0645 Reviewed Inside And outside Rounds

0702 Made Change Complete WCRK In operations.

1510 (im 11-8-12) ~~Made Chg~~ Reviewed Inside And outside Rounds

1550 Made Change Complete WCRK Yard In warm 50-65 In Cold.

11-8-12 1630 End of shift Securing SOS Position [illegible]

No further entries on this page

CCP Radiography Data Sheet

5871844

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0005
Examination Date:	1/15/2013
Waste Container ID:	92351
Video/Audio Recorded Media Number:	LA-RTR2-13-0005 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

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

CCP Radiography Data Sheet

Waste Container ID: 92351

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM:

OM: Scrap lead

OI:

C: Tape roll, fiberboard insert sleeve, fiberboard 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):	16.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	11.0
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	16.1
Soils (S):	
Total WMP Weight:	59.1

CCP Radiography Data Sheet

Waste Container ID: 92351

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

RTR Operator:		
Dennis Powell Eric Lyles	Dennis Powell	1-15-13 1/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92351	Count Sequence Number:	14865
Operator:	DCLTD231\Operator		
Assay Start:	1/18/2013 11:55:57 AM		
Description 1:	2LANDA1081		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 59.1 kg	Net:	59.1 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.320 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	14865	Batch Number:	2LANDA1081
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92351	Analysis Date:	1/18/2013

Net Weight	59100.0 g		
Pu mass	3.56E+001	+-	5.18E+000 g
TRU Alpha Activity	5.56E+000	+-	4.71E-001 Ci
TRU Activity Concentration	9.40E+004	+-	7.97E+003 nCi/g
Pu-239 Equivalent Activity	5.64E+000	+-	4.71E-001 Ci
Pu-239 FGE	3.36E+001	+-	4.87E+000 g
Decay heat	1.80E-001	+-	1.53E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.66E-002	4.76E-005	5.70E-006	1.06E-006
PU238	3.28E-003	5.67E-002	8.25E-003	3.57E-005
PU239	3.34E+001	2.10E+000	3.06E-001	1.32E-003
PU240	2.14E+000	4.91E-001	7.15E-002	3.09E-004
AM241	8.36E-001	2.90E+000	3.51E-001	4.47E-002
PU241	4.25E-002	4.42E+000	6.43E-001	2.78E-003
PU242	7.13E-003	2.83E-005	4.12E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.85E-007
U233	<LLD	<LLD	0.00E+000	5.28E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.46E-006
U238	<LLD	<LLD	0.00E+000	7.90E-006
AM243	2.76E-003	5.58E-004	6.74E-005	6.92E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·23·13

ITR: _____ Date: 1-24-13

Automated Independent Technical Review

Count Sequence Number: 14865
Batch Number: 2LANDA1081
Counter ID: HENC #2
Container ID: 92351
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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 Chamberlin Date: 1-21-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92351**

BDR Number: **LA13FG2004**

Sampling Date: **1/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	105.10	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130122c\
Data File : 92351.D
Acq On : 22 Jan 2013 3:28 pm (#1); 22-Jan-13, 15:28:02 (#2)
Operator : GR
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 22 15:37:01 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Oct 10 14:26:44 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.545	96	4211607	201.25	ppmv	-0.02
15) Chlorobenzene-d5	5.878	117	3709194	177.00	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.620	GC1	747m	105.10	ppmv	

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

22

S873554

S873554

Container P 773191

File Options Reports Help

S873554

773191	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

S873554

- S873554
  - LA00000068734
    - LA00000069121 – EMPTY
    - LA00000069034 – WCS
      - LASB50027
    - LA00000069033 – LANL
      - LASB50063
    - LA00000069036
  - W798018 – EMPTY

Task History

Transfer Details

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

Working Copy
Date: 12/4/13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68734

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

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

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

4.1[6][B] Parent Waste Container RCRA Designations: N/A

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

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

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

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

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

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

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

Performed By: Federico Ochoa 1225826 12-4-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68734

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 401.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): ~~83~~ 123.0 lb 12-4-13

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) ~~484.6~~ 528.6 lb 12-4-13

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

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

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 68734

	Daughter Drums				
10.1[4]/10.2[4]	Daughter Drum No.	69034	69033	69036	N/A
10.1[4]	Daughter Drum Filter No.	AN-656	AN-678	AN-668	
10.1[4]	Daughter Drum Bag Filter No.	L-10065	L-10068	L-10069	
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		
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	3gallons	1 gallon	N/A	
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	N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	See Comments	SEE COMMENTS	
10.3[13]/10.4[10]/10.5[4]/10.6[10]	Daughter Drum % Full (%)	85%	80%	15%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter Stub Outs	Kitty Litter Stub Outs	BAG OUT STUBS	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68734

Comments: Nitrate Salts, plastic, Lead Shielding
Kitty Litter, GLASS WINDOWS, GASKETS, HEX ARMOURS

11.1[1] Performed By: Brian Gallegos / [signature] / 2607229 12-05-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [signature] / 1145237 / 12/4/13 0930
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-5-13

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.:	N/A	N/A
Cal. Expiration Date:		
Tolerance:		

Overpack filtered vent information:

Manufacturer: Nuc Fil
Model No.: 019DS
Serial No.: AN-707
Manufacture Date: 1-13

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

5. [11] Performed By: Melinda Stewart Melinda Stewart 127 72168 12-5-13
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: Prepped at 54

8.1[1] Performed By: Melinda Stewart Melinda Stewart 127 72168 12-5-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez [illegible] 149235 12/10/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 12/6/13 HS

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69121

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: Brian Gallegos / [signature] / 267129 12-06-13
Operator (print) Signature Z # Date

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

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

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

	Filtered Vent	2 in. Bung
M&TE No.:	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: _____ 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.: 69121

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 164.6 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: BRIAN GALLEGOS / [signature] 1267129 12-06-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149931 12/16/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: ~~12-13-12-3-13~~ 12-3-13 JC

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69037

5.[3] Drum information:
Purchase Order No.: 501575
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2.5PVC
Serial No.: L-10068
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: Edward Martinez (Operator (print)) [signature] (Signature) 1239111 (Z #) 12-3-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 0190S
Serial No.: AN-678
Manufacture Date: 1/13

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

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

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

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

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

5.[34][E] Drum ID No.: 69033

Comments: MC

5.[35] Performed By: Edward Martinez | [signature] | 1239911 | 12-3-13
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Gilbert Martinez | [signature] | 149277 | 12/10/13
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69033

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) 1239911 (Z #) 12-4-13 (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.:	N/A	N/A
Cal. Expiration Date:	N/A	N/A
Range:	N/A in-lb	N/A ft-lb
Tolerance (+/-):	N/A	N/A

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

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

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69033

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 262.0 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 [signature] 1239911 12-4-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 1149257 12-16-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-3-13 UET

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69034

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5. 2SPVC
Serial No.: L-10065
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: Edward Martinez (Operator (print)) [signature] (Signature) 1239911 (Z #) 12-3-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: G1912S
Serial No.: AN-656
Manufacture Date: 1/13

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

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

5.[30] Scale File ID number: 69034

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.: 609034

Comments: N/C

5.[35] Performed By: Edward Martinez, [signature] 1239911 12-3-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez, [signature] 1146325 12/10/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69034

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 / [signature] / 1239411 / 12-4-13
Operator (print) / Signature / Z # / Date

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

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

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

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

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

Performed By: N/A / N/A / N/A / 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.: 69034

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 302.6 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: Edward Martinez [signature] 1239411 12-4-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 1442351 12/16/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-3-13 JL

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69036

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

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: GLPVC 1.5-2SPVC
Serial No.: L-10069
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:	12-16-13	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: Edward Martinez (Operator (print)) [signature] (Signature) 1239911 (Z #) 12-3-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: AN-668
Manufacture Date: 1/13

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

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

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

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

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

5.[34][E] Drum ID No.: 69036

Comments: N/C

5.[35] Performed By: Edward Martinez [signature] 1235991 12-3-13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 114925 12/6/13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69036

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: Melinda Stewart / Melinda Stewart 1277268 / 11/5/13
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:	N/A in-lb	N/A ft-lb
Tolerance (+/-):		

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

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

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69036

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 174.8 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: Fredrico [illegible] [signature] 1228861 12-6-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert [illegible] [signature] [illegible] 12/10/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 3
Page 1 of 1

Working Copy
Date: 12/4/13 HS

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68734

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

6.3[16] Platform scale serial number: 019016 5
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 401.6

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: Federico Ochoto / [signature] 1228846 / 12-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martin / [signature] 149235 / 12/10/13
Supervisor or designee (print) Signature Z # Date

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

8.1[8][D] Approved by: Gilbert Martin / [signature] 149235 ~~149235~~ Gm 12/10/13 / 12/10/13 / 450
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum SP72 NC 6.10.1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Daughtry 11/12/13 Container re-labeled & given new number. 11/12/13

Container ID: S873554 / 68734 Container Type: 85-GAL Gross Weight (lbs): 416

Inner Seal #: 023861 Filter Prefix: LAVC Filter Serial #: 05011

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

TWSR Comments: LEACHED SOLIDS MST 12 A04452

Total PE-Ci Activity: 6.12E+00 Equivalent Combustible PE-Ci: 2.30E+00 AM-241 PE-Ci: 4.97E-01

Total Fissile Gram Equivalents: 67.6 Total Surface Dose Rate (mrem/hr): 70

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/11/2007 Comment: Impenetrable Obj, Liner Not Punctured,

Certified RTR Comment: None

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☑ VE 10/31/12 ☐ PID ☐ Split ☑ Repack

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

TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D002, D008 and D009 are on the label. A minimum of 1.2 volumes of kitty litty/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: R. W. Jones R. W. Jones 117434 12.1.11
Production Control (Print) Signature Z Number Date

SUSAN S. RAMSEY Susan S. Ramsey 100681 10/31/12

WDP Engineering

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Leached solids - nitrate salts
Net Wt: 3531b. Twelve items; heaviest item weighs ~ 401bs while others range from 101b to 251b
55 gal drum overpacked in 85 gal drum

May require RWP for >1000 and <10000 mrem/hr @ 30 cm

Drums w/ nitrate salts may have undocumented liquids

Performed By: Valerie Rhodes Valerie Rhodes 112609 12/1/11
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: USE Proper PPE and Kitty Litter Bath

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments:

Performed By: Gilbert Martinez Gilbert Martinez 149235 11/13/13
TRU Remediation Operations (Print) Signature Z Number Date

234079 12/12/11

HHS Review Johnny Arnaldand CSP, may contain Pb, Cr, Hg
Darrel L. Blair Darrel L. Blair 218069 11/14/13

Noncertified TRU Waste Drum Item Information

DrumID: 023861

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	8LR3ES1		4.500	NITRATE SALTS	R00	3.7	52	1/13	G468
2	7DS27ES1		5.900	NITRATE SALTS	R00	2.17	52	1/13	G468
3	8LR4ES1		18.100	NITRATE SALTS	R00	10.81	52	1/13	G468
4	8X14WS1		7.720	NITRATE SALTS	R00	4.51	52	1/13	G468
5	80X7ES1		4.620	NITRATE SALTS	R00	1.36	52	1/13	G468
6	80X11ES1		10.390	NITRATE SALTS	R00	4.85	52	1/13	G468
7	8LR19WS1		9.610	NITRATE SALTS	R00	3.04	52	1/13	G468
8	8LR19ES2		9.370	NITRATE SALTS	R00	5.36	52	1/13	G468
9	8DS31ES1		11.240	NITRATE SALTS	R00	7.98	52	1/13	G468
10	8LR28WS1		10.730	NITRATE SALTS	R00	1.99	52	1/13	G468
11	90X1WS1		5.540	NITRATE SALTS	R00	8.31	52	1/13	G468
12	90X11WS1		11.390	NITRATE SALTS	R00	17.77	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 188.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	71.85	109.11
Totals	71.85	109.11

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1·11·11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[redacted]	1269773	1-12-11
	/	/	/

Container No. (7.[1]):	S825908	S873554	S823276
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			5.98
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	5.98

ATTACHMENT 1
Page 2 of 2

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

	Container Number (7.[1]):	S825908	S873554	S823276
	Hydrogen Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	1217.00 ppm
	Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
	Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	598 ppm
	Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
	WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
	Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
	Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
	Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])		☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
	Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 1-12-10
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

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

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

11.1[7][B]/ Reviewed By: Henry Romero Henry Romero 111782 / 1.13.11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110111c\
Data File : S873554.D
Acq On : 11 Jan 2011 3:30 pm (#1); 11-Jan-11, 15:29:44 (#2)
Operator : EL
Sample :
Misc : 55 GAL LFL DRUM FROM 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 11 15:55:34 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	3.724	96	10974476	205.50	ppmv	0.09
15) Chlorobenzene-d5	6.043	117	9010559	182.75	ppmv	0.08

Target Compounds	Qvalue

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

vocgas.m Tue Jan 11 15:56:38 2011

12/4/13

0613 ASSUMING OPERATIONS CENTER H SMITH

0625 STARTING PRE-JOB BRIEFING

0700 PRE JOB CONCLUDED

0723 OPERATORS ENTER FACILITY TO INSPECT GLOVEBOX GLOVES FOR GLOVE CHANGES

0815 OPERATORS NOTIFIED OPERATIONS CENTER GLOVEBOX GLOVE STATION #7, WILL NEED TO BE CHANGED.

0821 MODE CHANGE DECREASE TO WARM STANDBY IN TA50-69 AND WCRRF YARD.

0832 STARTING GLOVEBOX GLOVE CHANGES AT STATION #7 BOTH LEFT & RIGHT GLOVES

0858 COMPLETED GLOVE CHANGES

0904 MODE CHANGE INCREASE WCRR YARD AND TA50-69 NOW IN OPERATIONS MODE

0920 OPERATORS ADVISE OPS CENTER ON POST JOB SURVEYS RCT FOUND 10 DPM ALPHA AT STATION #7. WIPE DOWN AND WILL RE-EVALUATE. 12/4/13

0934 OPERATORS ADVISED OPERATION CENTER SMEARS FROM GLOVE SURVEYS WERE NDA

0936 BAGGING OFF, BAGGING ON DAUGHTER

0953 BAG OFF COMPLETE AND CONTINUING TO PROCESS

1005 EWMD DIVISION BEP MEETING BEGINNING

1011 BAGGING OFF, BAGGING S861976

1116 OPERATORS NOTIFIED OPS CENTER OF LEFT HAND CONTAMINATED GLOVE WHILE PERFORMING BAG CUT DURING BAG OFF, PPE GLOVE REMOVED AND RCT'S STATED LEVEL BELOW RWP LIMITS AND OPERATORS CONTINUED WITH OPERATION

1144 OPERATORS NOTIFIED OPERATIONS CENTER OF 15 GALLONS ON FLUIDS IN S861976, AND DRUM STILL CONTAINS FROZEN MATTER

1154 BAGGING OFF, BAGGING ON 1 DAUGHTER

1155 LATE ENTRY: EWMD DIVISION BEP BRIEFING CONCLUDED 1145 HS

1210 BAG ON BAG OFF COMPLETED

CONTINUED ON NEXT PAGE H SMITH

12-4-13 CONTINUED FROM PREVIOUS PAGE H SMITH
1250 OPERATORS PUT WASTE IN SAFE CONFIGURATION TO PAUSE WORK FOR MEETING AND LUNCH
1510 WORK SCHEDULE ~~BS~~ HS 12/4/13 BRIEFING CONCLUDED
1620 OPERATORS DENESTING AND BAGGING ON.
1700 STARTING OUTSIDE ROUNDS
1720 BAG ON BAG OFF COMPLETED, BAG ON 68734
1730 OUTSIDE ROUNDS COMPLETED
1731 BEGIN MOVEMENT OUT OF TA50-69 INTO TA50-194/75
1731 STARTED INSIDE ROUNDS
1749 ITEM #63 INSIDE ROUNDS OOS, POD IN PLACE PERMISSION TO PROCEED PER CSE DOCUMENTATION
1755 MOVEMENT INTO TA50-194/75 IS COMPLETED.
1756 INSIDE ROUNDS COMPLETE
12-4-13 1800 BEING RELIEVED BY TERRI COLEMAN H SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

12-4-13

1800 Assuming WCRR operations center - Coleman

1812 Turnover with day shift.

1819 Pre-job being conducted by SOS. Meeting with ES OM.

2003 Pre-job concluded.

2026 Operators entering 5069 to begin operations.

2205 Bagging off / daughter, bagging on another daughter.

2224 Bag off / on complete.

'4/25 2244 Notified by operator that they have a broken window on Station 2 (top window). Entering EP-WCRR-RM-AOP-021C
unexpected condition
SOS, SOM notified. No CAM's alarming. Operators have suspended operations. Everything is in a safe configurat
'N Operators following RCT direction and have taped the window. All non essential personnel exiting the area. The current reading on the WCG on the Allen Bradley is -0.60. The operators state that while attempting to pull out the poly liner, it accidentally hit the window

SC 12-4-13 2300 ~~1100~~ Spoke with CSE. SOM notified OM.

SC 12-4-13 2305 ~~1105~~ Tried to contact ES OM, unable to leave a message, mailbox full.

2315 Path forward being discussed.

2324 Was able to contact ES OM. She states that she would like the SOS to send her an e-mail regarding the situation.

12-5-13 0005 Beginning outside rounds.

SC 12-5-13 0033 Outside rounds complete.

0048 ~~0148~~ Bagging off / daughter.

0058 Submitted an FSR for the light fixture in the airlock of 5069. FSR# 115115.

0100 Bag off complete.

0115 Operators out for lunch.

0155 Mode change complete. We are now in Warm Standby in WCRRF yard and 5069.

0215 Operators back from lunch. Pre-job being conducted for the window change. Operators will only be prepping the window for day shift. SOS and SOM have made the decision that night shift does not have

Continued on next page. Coleman

12-4-13 DAYSHIFT

0600 Reviewed shift turnover checklist and assumed the WCRR SOM position John Lundquist

0658 Completed attending the pre-job brief conducted by the SOS (Clarissa). The safety topic was high wind, be careful when opening transportainer doors or morgan shed / PPE doors. During shift relief, it was reported stations 1,2,3,4, 7, and 8 gloves require changing due to wear. The PIC and RCT will inspect prior to operations commencing. There is one scheduled transfer out.

0708 Completed daily POD call in with AREA 6 - SOM

0815 Inside operations report they will change station 7 - LAR hand -

0821 Mode Change: 50/69 and Yard transition from Operations/Operations to WARM/WARM

0832 The sector radio was checked and was noted operational, no battery required

0856 Glove change noted completed.

0904 Mode Change 50/69 and Yard transition from WARM/WARM to Operations/Operations

0936 Inside operation initiate bag off and bag on of 1 daughter of Parent 68725 SP-72

1010 Initiate Training in Operations Center on EWMO Division Bldg Emergency Plan Ops Center Protocol with (CD) as trainer.

1041 Inside Operations report bagging off and bagging on Parent 5861976.

1116 Inside Operations report that the Left hand / PPE glove was contaminated during bag off, RCTs removed and contained / threw away glove. Levels were within RWP limits - PPE glove replaced and operations continued.

1144 Operators report 15 gallons of liquid from parent 3861976 and they observe frozen matter within the drum. Pit is noted as Ø.

1154 Operators are bagging off 1 daughter and bagging on another

1250 Operations place WCR in a safe configuration and exit for lunch

1310 Operations completed meeting with ES Project Manager and resumed 50/69

1420 Operations initiated denesting 2 parents and will perform bag off / bag on.

1718 The bag off and bag on is noted complete Parent drum bagged on is 68734

1731 Operations initiate movement of 4 drums.

1750 All movements were completed, WCR secured for night shift.

1809 Relieved of SOM by R. Artell John Lundquist

No further Entries this Page

12/4/13 Night shift

1809 Reviewed the shift turnover checklist and assumed WCRR SOM position.

1820 SOS informed all ES employees having meeting w/ ES Project Manager

1945 ES management meeting concluded - beginning pre job brief.

2005 Completed pre job brief - discussed work to be accomplished on shift - working SP-32 drums and lessons learned from dayshift (Liquids / frozen waste). IH safety topic was winter sports injuries - avoidance. Discussed active shift orders.

2224 Completed bag off of 1 daughter - continuing to process.

2244 Notified by OCO of broken window on WCG @ station #2 upper (large) Entered AOP-0210 Loss of glovebox integrity w/ entry condition of cracked window. CAMs are reading normal Operations are suspended. Waste in bottom of WCG has fire blanket on top. Ventilation readings on WCG are normal @ -0.60 inwc. RP-1 has not identified any contamination on the outside of glovebox. Operators have taped the inside of the cracked window.

2300 OM and CSE notified.

2305 Discussion w/ operator who broke window - indicated when pulling poly liner out of parent drum it came in contact w/ metal bar staged near upper portion of WCG. Sharp edge of bar struck window and caused crack. Spidering of window was limited to inner pane only.

2315 Discussed path forward w/ operations, RP-1 and IH. Operators will close parent drum and place waste inside WCG into daughter drum and bag off. Once waste is in safe configuration will drop mode and commence prerequisites for window change out.

12/5/13 0058 Light in airlock going into 50-69 main entrance is out. FSR submitted # 115115

0100 Bag off is complete of daughter drum. WCG is now in a safe configuration

0115 Operators breaking for lunch

continued on next ~~page~~ page MK 12/5/13

PROJECT NAME _____ NOTEBOOK NO. _____

12-4-13

0625 Assuming WCRRF SOS position.
0626 Starting Pre-job briefing
0700 Pre job concluded
0818 Glove inspection complete. will need to change out 4a 12-4-13 station 7 left and right
0821 mode change to warm on WCRRF yard and TA50-69
0832 Started glove changes.
0858 Glove changes completed
0904 mode change performed. TA50-69 and WCRRF yard in operations.
0920 Operators inside rad/rad ops center. that post job results showing 100dpm alpha from station 7 glove changes. RCTs ~~reperm~~ @ 12-4-13 reperforming smears after wipe down.
0935 RCT resurvey of smears of station 7 are NDA.
0936 Bagging off 1 daughter, bagging on 1 daughter.
0953 Bag on, Bag off complete.
1000 Briefing being conducted on emergency plan operations center response Protocol.
1041 Bagging off, Bagging on 5861976
1114 Inside pic notified ops center of a Hot left hand PPE glove while performing bag cut. PPE glove removed and RCT's have started RSO limits not exceeded. Operators continuing with operations.
1144 Inside pic notified ops center of 15 gallons of liquid from drum 5861976 and drum still contains ice.
1155 Bagging off 1 daughter, Bagging on 1 daughter.
1156 late entry Briefing completed at 1130 - CD
1210 Bag on, Bag off complete.
1300 meeting with ES ops managers
1500 meeting concluded.
1620 starting to denot and bag off. Then bagging on 118734
1718 Bag on, bag off complete. Denoting also complete.
1721 Starting inside rounds.
1730 Completed outside rounds.
1736 Starting movement out of 50-69
1800 Completed inside rounds.
1815 Being relieved by SOS Darrell Blair, - Cullande

no further entries this page

SIGNATURE _____ DATE _____ 20 _____

NCER SOS Log Book

NOTEBOOK NO

12/04/13 1800 Assuming SOS Position from Clarissa Velarde. DMB

1810 Meeting with Leah on shift changes and other company issues.

1950 Meeting concluded

1955 Pre job briefing conducted. Discussed keeping focused and on task after meeting.

2015 Pre job concluded.

2205 Bagging off 1 daughter, bagging on 1 daughter

2224 Bag off/on completed.

2244 Notified by operator that while working in the glove box at station 2 the tool used at that station dropped down and hit the window. (Top window) All radiological conditions are normal. Window was taped and work paused. All notifications were made. Alpha Bradley readings were normal 0.60. All personnel exit building for a briefing for path forward. Entered ADP-0210.

unexpected condition

2344 Operators enter to place glove box in a safe configuration

0033 Outside rounds completed

0048 Bagging off 1 daughter

0100 Bag off completed of 1 daughter.

HH

0155 Mode change to warm to support window change.

0215 Pre job for steps to be taken for window change. Decided by SOM and management not to change window. This is due to support personnel not on site.

0300 Prepping for window change up to gasket check in the procedure

0500 Rounds inside and outside signed off

0520 Prep for window change complete

0530 All materials restocked and trash taken out.

0620 Turn over to SOS Clarissa Velarde. DMB

No further entries this page
DMB 12-05-13

DATE

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0135
Examination Date:	12/12/2013
Waste Container ID:	69033
Video/Audio Recorded Media Number:	LA-RTR2-13-0135 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 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 1 layer
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 69033

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.0
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	74.6
Soils (S):	
Total WMP Weight:	85.6

CCP Radiography Data Sheet

Waste Container ID: 69033

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

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	12/12/2013
Print Name	Signature	Date

5873554

NDA 2000 Assay Report

Item Information

Item ID:	69033	Count Sequence Number:	24045
Operator:	D3PW2DK1\operator		
Assay Start:	1/2/2014 3:25:52 PM		
Description 1:	1LANDA1885		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 85.6 kg	Net:	85.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
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

034
CS 6/9/14

NDA 2000 Assay Report

Item Information

Item ID:	69033	Count Sequence Number:	24045
Operator:	D3PW2DK1\operator		
Assay Start:	1/2/2014 3:25:52 PM		
Description 1:	1LANDA1885		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 85.6 kg	Net:	85.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
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

QUEUED 06/9/14

034A
6/9/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 24045
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69033

Batch Number: 1LANDA1885
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/2/2014

Net Weight	85600.0 g		
Pu mass	3.23E+001	+-	6.21E+000 g
TRU Alpha Activity	1.31E+001	+-	5.79E+000 Ci
TRU Activity Concentration	1.53E+005	+-	6.77E+004 nCi/g
Pu-239 Equivalent Activity	1.32E+001	+-	5.79E+000 Ci
Pu-239 FGE	3.05E+001	+-	6.19E+000 g
Decay heat	4.30E-001	+-	1.92E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.28E-006
U233	<LLD	<LLD	0.00E+000	1.18E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.34E-006
NP237	1.76E-001	1.24E-004	2.16E-005	5.19E-006
PU238	2.95E-003	5.05E-002	1.22E-002	1.37E-003
U238	<LLD	<LLD	0.00E+000	2.80E-005
PU239	3.03E+001	1.88E+000	3.84E-001	5.11E-002
PU240	1.94E+000	4.40E-001	1.09E-001	1.20E-002
AM241	3.12E+000	1.07E+001	5.78E+000	1.22E-001
PU241	3.68E-002	3.79E+000	9.41E-001	1.03E-001
PU242	6.47E-003	2.56E-005	6.35E-006	0.00E+000
AM243	6.85E-003	1.37E-003	2.41E-004	1.68E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 6.6.14

ITR: _____ Date: 6-6-14

035
e3d4/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 24045
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69033

Batch Number: 1LANDA1885
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/2/2014

Net Weight	85600.0 g		
Pu mass	3.23E+001	+- 6.21E+000	g
TRU Alpha Activity	2.69E+000	+- 4.06E-001	Ci
TRU Activity Concentration	3.14E+004	+- 4.75E+003	nCi/g
Pu-239 Equivalent Activity	2.76E+000	+- 4.07E-001	Ci
Pu-239 FGE	3.05E+001	+- 6.19E+000	g
Decay heat	8.45E-002	+- 1.27E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.28E-006
U233	<LLD	<LLD	0.00E+000	1.18E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.34E-006
NP237	1.76E-001	1.24E-004	2.16E-005	5.19E-006
PU238	2.95E-003	5.05E-002	1.22E-002	1.37E-003
U238	<LLD	<LLD	0.00E+000	2.80E-005
PU239	3.03E+001	1.88E+000	3.84E-001	5.11E-002
PU240	1.94E+000	4.40E-001	1.09E-001	1.20E-002
AM241	9.12E-002	3.13E-001	7.49E-002	8.49E-003
PU241	3.68E-002	3.79E+000	9.41E-001	1.03E-001
PU242	6.47E-003	2.56E-005	6.35E-006	0.00E+000
AM243	6.85E-003	1.37E-003	2.41E-004	1.68E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1·7·14

ITR: [signature] Date: 1·8·14

035A
CS 6/9/14

Automated Independent Technical Review

Count Sequence Number: 24045 Batch Number: 1LANDA1885
Counter ID: MCS HENC #1
Container ID: 69033
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/2/2014

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

036
06/6/14

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	OK
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

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

037
6/4/14

Automated Independent Technical Review

Count Sequence Number: 24045 Batch Number: 1LANDA1885
Counter ID: MCS HENC #1
Container ID: 69033
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/2/2014

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

CHECKED CJ 6/9/14

037A
~~036~~
CJ 6/9/14

Comments	Disposition
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	 OK After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 1/7/14

APPROVED 6/9/14

0373
CS 6/9/14

Waste Container ID: **69033**

BDR Number: **LA14FG2002**

Sampling Date: **1/3/2014**

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\140103c\
Data File : 69033.D
Acq On : 3 Jan 2014 12:40 pm (#1); 03-Jan-14, 12:39:55 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 12:48:43 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	3410670	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.881	117	2721171	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-RTR2-13-0135
Examination Date:	12/12/2013
Waste Container ID:	69034
Video/Audio Recorded Media Number:	LA-RTR2-13-0135 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 137.0 kg Tare Wt.: 33.4 kg Net Wt.: 103.6 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: 69034

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal, closure ring, hand tools, utility knife

AM:

OM:

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):	2.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	97.1
Soils (S):	
Total WMP Weight:	103.6

CCP Radiography Data Sheet

Waste Container ID: 69034

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

RTR Operator:

Thad Hasselstrom	[signature]	12/12/2013
Print Name	Signature	Date

5 873554

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

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

Item ID:	69034	Count Sequence Number:	24044
Operator:	D3PW2DK1\operator		
Assay Start:	1/2/2014 2:43:50 PM		
Description 1:	1LANDA1885		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 104.0 kg	Net:	104.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.670 kg /l		

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

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

Errors quoted at 1.000 sigma

030
CB 6/9/14

NDA 2000 Assay Report

Item Information

Item ID: 69034 Count Sequence Number: 24044
Operator: D3PW2DK1\operator
Assay Start: 1/2/2014 2:43:50 PM
Description 1: 1LANDA1885
Description 2: N/A
Location: LANL TA-54
Comment: AK-6
Matrix Type: Homo Sol. S3000
Container Type: 55 gallon drum
Weight: Net: 104.0 kg Net: 104.0 kg
Container: Volume: 208.0 l Full: 75.0 %
Density: 0.670 kg /l

System Configuration

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

Errors quoted at 1.000 sigma

SUPERSEDED CB 4/9/14 CB 4/9/14

03UA CB 4/9/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24044	Batch Number:	1LANDA1885
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69034	Analysis Date:	1/2/2014

Net Weight	104000.0 g		
Pu mass	4.60E+001	+-	9.07E+000 g
TRU Alpha Activity	1.11E+001	+-	4.24E+000 Ci
TRU Activity Concentration	1.07E+005	+-	4.07E+004 nCi/g
Pu-239 Equivalent Activity	1.12E+001	+-	4.24E+000 Ci
Pu-239 FGE	4.34E+001	+-	9.04E+000 g
Decay heat	3.63E-001	+-	1.41E-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	1.35E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.11E-006
NP237	1.49E-001	1.05E-004	1.91E-005	6.12E-006
PU238	4.20E-003	7.18E-002	1.76E-002	1.83E-003
U238	<LLD	<LLD	0.00E+000	2.86E-005
PU239	4.32E+001	2.68E+000	5.61E-001	6.82E-002
PU240	2.76E+000	6.26E-001	1.58E-001	1.60E-002
AM241	2.26E+000	7.75E+000	4.19E+000	1.63E-001
PU241	5.24E-002	5.39E+000	1.36E+000	1.38E-001
PU242	9.21E-003	3.64E-005	9.19E-006	0.00E+000
AM243	5.83E-003	1.17E-003	2.13E-004	2.00E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 6.6.14

ITR: _____ Date: 6-6-14

031
PB 6/9/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 24044
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69034

Batch Number: 1LANDA1885
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/2/2014

Net Weight	104000.0 g		
Pu mass	4.60E+001	+-	9.07E+000 g
TRU Alpha Activity	3.82E+000	+-	5.93E-001 Ci
TRU Activity Concentration	3.67E+004	+-	5.70E+003 nCi/g
Pu-239 Equivalent Activity	3.92E+000	+-	5.93E-001 Ci
Pu-239 FGE	4.33E+001	+-	9.04E+000 g
Decay heat	1.20E-001	+-	1.85E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.35E-006
U233	<LLD	<LLD	0.00E+000	1.35E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.11E-006
NP237	1.49E-001	1.05E-004	1.91E-005	6.12E-006
PU238	4.20E-003	7.18E-002	1.76E-002	1.83E-003
U238	<LLD	<LLD	0.00E+000	2.86E-005
PU239	4.32E+001	2.68E+000	5.61E-001	6.82E-002
PU240	2.76E+000	6.26E-001	1.58E-001	1.60E-002
AM241	1.30E-001	4.45E-001	1.09E-001	1.13E-002
PU241	5.24E-002	5.39E+000	1.36E+000	1.38E-001
PU242	9.21E-003	3.64E-005	9.19E-006	0.00E+000
AM243	5.83E-003	1.17E-003	2.13E-004	2.00E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·7·14

ITR: _____ Date: 1·8·14

SUPERSEDED 6/9/14

031A
6/9/14

Automated Independent Technical Review

Count Sequence Number: 24044 Batch Number: 1LANDA1885
Counter ID: MCS HENC #1
Container ID: 69034
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/2/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	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. MCA Deadtime greater than the upper limit of 50.0%. Spectrum Validity Check engine has suggested data review.	OK No spectral distortion observed. After EA review, spectrum valid.

032
CB 6/9/14

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

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

033 6/9/14

Automated Independent Technical Review

Count Sequence Number: 24044 Batch Number: 1LANDA1885
Counter ID: MCS HENC #1
Container ID: 69034
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/2/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	OK
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	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.

REVIEWED CS 6/9/14

033A
~~032~~
CS 6/9/14

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	OK
MCA Deadtime greater than the upper limit of 50.0%.	No spectral distortion observed.
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 1/7/14

VERIFIED CS 6/9/14

033B
CS 6/9/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69034**

BDR Number: **LA14FG2002**

Sampling Date: **1/3/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	574.80	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	2.02	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140103c\
Data File : 69034.D
Acq On : 3 Jan 2014 12:29 pm (#1); 03-Jan-14, 12:28:39 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 03 12:37:22 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	3.539	96	3307943	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.848	117	2635818	177.50 ppmv	-0.01
Target Compounds					Qvalue
1) Hydrogen	1.619	GC1	4322m	574.80 ppmv	
12) Benzene	3.219	78	23623	2.02 ppmv	97

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0012
Examination Date:	1/29/2014
Waste Container ID:	69036
Video/Audio Recorded Media Number:	LA-RTR2-14-0012 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.: 79.5 kg Tare Wt.: 33.4 kg Net Wt.: 46.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 69036

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):	33.4
Other Inorganic Materials (OI)	
Cellulosics (C):	0.2
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	8.5
Soils (S):	
Total WMP Weight:	46.1

CCP Radiography Data Sheet

Waste Container ID: 69036

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		1/29/2014
Print Name	Signature	Date

5873554

NDA 2000 Assay Report

Item Information

Item ID:	69036	Count Sequence Number:	16927
Operator:	DCLTD231\Operator		
Assay Start:	1/30/2014 12:47:51 PM		
Description 1:	2LANDA1261		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 46.1 kg	Net:	46.1 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.440 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:	16927	Batch Number:	2LANDA1261
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69036	Analysis Date:	1/30/2014

Net Weight	46100.0 g		
Pu mass	2.33E+001	+-	8.54E+000 g
TRU Alpha Activity	1.01E+001	+-	5.70E+000 Ci
TRU Activity Concentration	2.19E+005	+-	1.24E+005 nCi/g
Pu-239 Equivalent Activity	1.01E+001	+-	5.70E+000 Ci
Pu-239 FGE	2.20E+001	+-	8.02E+000 g
Decay heat	3.32E-001	+-	1.89E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.69E-002	4.72E-005	6.67E-006	1.20E-006
PU238	2.13E-003	3.64E-002	1.33E-002	3.65E-005
PU239	2.19E+001	1.36E+000	4.97E-001	1.36E-003
PU240	1.40E+000	3.18E-001	1.16E-001	3.19E-004
AM241	2.44E+000	8.38E+000	5.68E+000	9.33E-002
PU241	2.65E-002	2.73E+000	9.98E-001	2.74E-003
PU242	4.67E-003	1.84E-005	6.76E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.79E-007
U233	<LLD	<LLD	0.00E+000	6.03E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.47E-006
U238	<LLD	<LLD	0.00E+000	1.67E-005
AM243	2.37E-003	4.73E-004	6.73E-005	7.49E-006

Errors quoted at 1.000 sigma

Operator: Brit Lupfert Date: 2-3-14

ITR: Jim Barton Date: 2/3/14

Automated Independent Technical Review

Count Sequence Number: 16927
Batch Number: 2LANDA1261
Counter ID: HENC #2
Container ID: 69036
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/30/2014

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

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

Expert Review by: Sheri Chamberlin Date: 2-7-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69036**

BDR Number: **LA14FG2015**

Sampling Date: **2/5/2014**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140205c\
Data File : 69036.D
Acq On : 5 Feb 2014 12:44 pm (#1); 05-Feb-14, 12:43:43 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 05 12:52:57 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.558	96	3208961	205.75 ppmv	0.04
15) Chlorobenzene-d5	5.865	117	2558495	177.50 ppmv	0.00

Target Compounds Qvalue

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

21

S8815562

S881562

Container Pr 50988

File Options Reports Help

S881562

750988	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

S881562

- S881562
  - 91005 - EMPTY
  - 91004
    - 92168 - EMPTY
    - 92166
  - 91003
    - 92916 - EMPTY
    - 92915
  - 91002
    - 92891 - EMPTY
    - 92890
  - 91001
    - 92379 - EMPTY
    - 92378
  - 91000
    - 92208 - EMPTY
    - 92206
      - SB02028
  - 90999

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weight ...
16.6664925833333	%			

UET Working Copy Date: 2-28-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5881562

6.2[4] Date Processed: 2-28-12

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

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

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

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

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

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

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

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

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

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

Performed By: B. FORDHAM / B. Fordham / 235635 / 2-28-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 425.6 lb

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

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S881562

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 545.6 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.	90999	POC 1B	POC 1C	POC 1d
10.1[4]	Daughter Drum Filter No.	CL-1387	N	N	N
10.1[4]	Daughter Drum Bag Filter No.	LL-126	A	A	A
10.1[4]	Daughter Drum Purchase Order No.	415090			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Nuc-Fil	Nuc-Fil	Nuc-Fil	Nuc-Fil
	Model No.	LANL Bag 3-SPVC	LANL-Bag 3-SPVC	LANL Bag 3-SPVC	LANL-Bag 3-SPVC
	Serial No.	LL-174	LL-186	LL-229	LL-185
	Date of Manufacture	12-11	12-11	12-11	12-11
10.2[5]	POC ID No	91000	91001	91002	91003
10.2[7][B]/10.2[6]	POC Item Description	Acid/neutralized absorbed Salts Plastic	Salts plastics liquid/absorbed	Salts plastics liquid absorbed	Salts liquids plastics absorbed
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	N/A
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F. 235635	B.F. 235635	B.F. 235635
10.2[14]	POC Assembly Gross Weight (lb)	427.8	389.0	394.0	426.2
10.2[15]	POC Rad. Survey Results (mrem/hr)	401.0 mR	350.25 mR	300.25 mR	400.5 mR
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHEILDING	N	N	N
10.3[5][A]	Free Liquid Volume/Units	2-3 gallons			
10.3[9][A]	PCB-contaminated Waste Description	N/A	A	A	A
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments	N	N	N
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	40%	A	A	A
10.5[4]	Description Waste Added During Processing	PLASTIC Impact Drill			

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S881562

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

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90999		N	
10.1[4]	Daughter Drum Filter No.	N			
10.1[4]	Daughter Drum Bag Filter No.			A	
10.1[4]	Daughter Drum Purchase Order No.	N			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Nuc-Fil			
	Model No.	LANL Bag 3-Spyc			
	Serial No.	LL-191			
	Date of Manufacture	12-11			
10.2[5]	POC ID No	91004			
10.2[7][B]/10.2[6]	POC Item Description	Acid/Absorbed Salts Plastic		N	
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635			
10.2[14]	POC Assembly Gross Weight (lb)	390.2			
10.2[15]	POC Rad. Survey Results (mrem/hr)	300 mr			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A		A	
10.3[5][A]	Free Liquid Volume/Units	2-3 Gallons			
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.	N			
10.3[10]	Remaining Waste Description				
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	A			
10.5[4]	Description Waste Added During Processing				

ATTACHMENT 1
Page 3 of 3

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

Comments: LEAD SHIELDING, 3 gallons of liquid acid, acid was PH TESTED @ 0, acid was neutralized, and absorbed Plastics, Polyliner lid, Plastic bags, salts, 10 total gallons of liquid absorbed,

11.1[1] Perfomed By: B. FORDHAM / B. Fordham 235235 2-28-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Anthony V. / [signature] 284866 2-28-12
SOS/SOM (print) Signature Z # Date/Time

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

85-Gallon Overpack ID Number 91005

RECORD Drum Filter information: Nuc Fil-013	
Filter ID Number: HK-1504	
Date of Manufacture: 8/10	

TORQUE WRENCH INFORMATION

Filter Torque Wrench		Drum Lid Ring Bolt	
M&TE ID#		M&TE ID#	038373
Cal Expiration Date		Cal Expiration Date	5/30/12
	N		
Tolerance		Tolerance +/- 3% cw +/- 6% ccw	
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
Done @ TA 54 area G		**Bung Torque Wrench**	
		M&TE ID#	N
		Cal Expiration Date	
		Tolerance	N
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

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

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

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

Drum lid ring threaded end touching jam nut: B.F. 3/13/12 ☑ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
B. Fordham	B. Fordham	B.F. B.F 2-28-12	1235635	2-28-12
Don Pacheco	Don Pacheco	DP	1240012	02-28-12

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

Drum ID#: 10999

1. Drum/Lid Assembly

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

RECORD drum information:
Purchase Request #: 415090
Lot #: 03220644
Date of Manufacture: 2011

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:
Manufacturer: NUCFIL
Model #: 03608A
Serial #: LL-126
Date of Manufacture: 12/11

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 019DS
Serial #: GL 1387
Date of Manufacture: 3-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	20-80
Tolerance:	±3% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: B. Fordham Signature: B. Fordham Z#: 235635

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: B. Fordham Operator Sign: B. Fordham Z#: 235635 Date: 2-28-12
Verifier Print: Don Pacheco Verifier Sign: Don Pacheco Z#: 240012 Date: 02-28-12

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

DRUM ID#: 90999

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 ft lbs

— Tolerance +/- 3% cw +/- 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 118.2

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR

Operator Print/Sign: B. Forbsham B. [signature] Date 2-28-12

Verifier Print/Sign: [signature] Date: 2-28-12

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S881562 Container Type: 85-GAL Gross Weight (lbs): 441
Inner Seal #: 023769 Filter Prefix: LAS; LAVC Filter Serial #: 02693; 03242
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS A04458
Total PE-Ci Activity: 8.37E+00 Equivalent Combustible PE-Ci: 3.14E+00 AM-241 PE-Ci: 6.79E-01
Total Fissile Gram Equivalents: 92.4 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/25/2007 Comment: Liner Not Punctured,
Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LAI25M Production Control Comments:

Performed By: R. W. Jones (Production Control (Print)) Signature: R. W. Jones Z Number: 117434 Date: 10.28.10

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Solid waste record indicates leached solids in form of nitrate salts. 9 items, heaviest item is 20 kg (44 lbs). Net weight of 9 items is 124 kg (273 lbs). May require RWP for >1,000 and <10,000 mrem/hr @ 30-cm. Drum is internally shielded with lead.

Performed By: Michael Garcia (WDP Engineering (Print)) Signature: Michael Garcia Z Number: 099143 Date: 11/11/10

TRU Remediation Operations

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

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

Performed By: Robert Rios (TRU Remediation Operations (Print)) Signature: Robert Rios Z Number: 099205 Date: 1-24-11

Noncertified TRU Waste Drum Item Information

DrumID: 023769

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	2OX1WS1		12.400	NITRATE SALTS	R00	3.53	52	1/13	G468	
2	2LR4ES1A		8.900	NITRATE SALTS	R00	4.15	52	1/13	G468	
3	2LR4ES1B		11.100	NITRATE SALTS	R00	5.17	52	1/13	G468	
4	2LR12ES1		16.700	NITRATE SALTS	R00	9.8	52	1/13	G468	
5	2OX17WS1A		10.400	NITRATE SALTS	R00	10.19	52	1/13	G468	
6	2OX17WS1B		9.600	NITRATE SALTS	R00	9.41	52	1/13	G468	
7	2RR24ES1		16.400	NITRATE SALTS	R00	19.35	52	1/13	G468	
8	2LR25ES1		18.000	NITRATE SALTS	R00	14.35	52	1/13	G468	
9	2LR26ES1		20.100	NITRATE SALTS	R00	22.31	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	98.26	123.60
Totals	98.26	123.60

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 11-9-10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[redacted]	286773	11-8-10
	/	/	/

CCP (Print)	Signature	Z #	Date

Container No. (7.[1]):	S883130	S881562	S873553
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])	S883130	S881562	S873553
	Hydrogen Reading (ppm) (7.[10]):	2612.03 ppm	Ø ppm	163.52 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.
Drum # S873553 is a 55 gallon drum sampled from under drum lid.

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 12-7-10
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

11.1[7][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT
- Hydrogen – less than or equal to 32,000 ppm
- VOC – less than or equal to 7,000 ppm

11.1[7][B]/ Reviewed By: Kenny Romero Kenny Romero 117881 12.15.10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101109c\
Data File : S881562.D
Acq On : 9 Nov 2010 1:09 pm (#1); 09-Nov-10, 13:08:17 (#2)
Operator : GR
Sample :
Misc : 55 GAL LFL DRUM FROM INSIDE 85 GAL OVERPACK
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 09 13:24:02 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Fri Oct 22 10:16:32 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.658	96	8920318	206.75	ppmv	-0.09
15) Chlorobenzene-d5	5.978	117	7029985	183.50	ppmv	-0.09

Target Compounds	Qvalue

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

vocgas.m Tue Nov 09 13:24:08 2010

24
2-28-12

PROJECT NAME _____ NOTEBOOK NO. _____

0545 assuming WCRR operations center. - [illegible]
0610 Beginning inside rounds.
0620 Pre job being conducted by SOS. Beginning outside rounds.
0624 Item #60 on the rounds is CCS. Per CSE documentation, we are okay to proceed.
0655 Rounds reviewed by SOS.
0720 Mode change complete (we are now in operations).
0725 Shift turnover brief with OCC Clarissa Orlando & [illegible]
0726 Assuming WCRRF operations center - [illegible]
0739 bagging on ~~3881562~~ 3881562
0813 permission granted by SOM to use introductory port.
0816 introducing nitrogen thru introductory port.
0843 Starting movement to transport vehicle. permission granted to lower vehicle access gates.
0917 Bagging off 3881562 and SPCC's bagging on 3881563
0945 Vehicle access gates have been restored, transportainer doors have been closed latched. Shipment complete.
1113 Starting movement out of 50-69.
1134 Bagging off 3881563 and PCCS and bagging on 3851506
1242 entering LOP-0207 high winds (>25 mph) outside outside operations have been suspended.
1321 exiting LOP-0207 OK to resume outside operations.
1400 On a brief pause due to cutter pins missing off of drum lift.
1417 Starting movement out 50-69
1430 Starting inside rounds.
1431 late entry at 1419 entering LCO 3.0.1, ~~3.0.2~~ 2-28-12 and 3.5. [illegible]
1437 Item # 50 is unsat ~~per~~ 2-28-12.
1444 Item #60 is OOS per CSE documentation OK to proceed.
1445 movement out of 50-69 complete.
1455 Inside rounds completed.
1500 Starting outside rounds.
1520 Completed outside rounds
1545 Inside and outside rounds signed rounds signed off by SOS
1621 Digesting drum 3851506
1626 ~~SOS~~ 2-28-12 Completed the digested of 3851506.
1652 mode change being performed we are now in warm.
1700 End of day operations center Decrease - [illegible]

[illegible] 2/28/12

no further entries this page

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

PROJECT NAME 2.28.12 NOTEBOOK NO.

0000 Reviewed shift turnover from previous shift and assumed the SOM duties. [signature]
0030 Attended pre-job briefing conducted by Shift Operations Supervisor.
0730 Mode change complete. WCRR YARD and 50-69 from WARM to OPERATIONS.
0753 Shift brief. Turn U/I watch over to Randy Axtell.
0753 Assumed the WCRR SOM U/I Watch R
1242 Entered AOP-0207 for Severe Weather - Sustained winds >25 mph. Suspended all outdoor operations at WCRR.
1321 Weather/Wind conditions subsided. Resumed outdoor operations.
1410 Notifies from Ops personnel that drum lift hinge pin clips had come off of the belly band.
1419 Entered into LCO's 3.0.1, 3.0.6 and 3.5 for Inoperable Drum Lift. Inventory was already in a safe configuration. Notifications are being made to FOD and DOE by acting OM.
1440 Notified by SOS that Drum lift has been caution tagged.
1455 Per OM after talking w/ CSE General LCO 3.0.6 does not apply to this failure of the drum lift. Exiting LCO 3.0.6.
1510 Late Entry (1439) Item #56 on WCRR Inside Rounds sheet marked as Unsat due to drum lift hinge pin problem.
1652 Mode change complete. Both WCRR yard and Bldg 50-69 in Warm Standby
1800 Secured SOM U/I watch. R
1910 Secured the WCRR SOM position. [signature]

No further entries

SIGNATURE [signature] DATE 2.28 20 12
READ AND UNDERSTOOD DATE 20

PROJECT NAME WCRR SOS LOG BOOK NOTEBOOK NO

2/28/12
0603 Reviewed SOS Turnover Assuming Position [illegible]
0615 Shift brief Conducted
0645 Shift brief Concluded.
0655 Reviewed Inside And outside Rounds
0720 Mode Change Complete WCRR Yard And 50-69 In Operations Mode
1220 Notified by Inside Personal that pins on drum lift Popped off. put every thing In A safe configuration
1310 notified CSE he notified that maintenance people need to come and replace.
1355 ~~1320~~ notified SOM was notified to pause operations May need to go into Cold to perform the Maintanance will get the Process Going to Come And Replace
1419 Entered CC 3.0.1 3.5 For Inoperable drum Lift
1535 Reviewed Inside And outside Rounds
1555 Notified by SOM To Remest drum In Facility.
1615 Operators entering Facility To Remest Drum
1645 Remest complete will move out In The morning.
1652 Mode Change Complet WCRR Yard And 50-69 In warm
1700 End of shift Securing SOS Position [illegible]

[illegible]
2/28/12

120 Further entries on Next 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-RTR2-12-0123
Examination Date:	10/25/2012
Waste Container ID:	90999
Video/Audio Recorded Media Number:	LA-RTR2-12-0123 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 54.0 kg Tare Wt.: 33.4 kg Net Wt.: 20.6 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:	20 %

CCP Radiography Data Sheet

Waste Container ID: 90999

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hand tool, scrap metal

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, plastic lid

OR:

IN: Absorbent

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP):Plastic Liner ~~Lid~~ TSH 10-30-12 BAG TSH 10-30-12	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	3.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	1.6
Soils (S):	
Total WMP Weight:	20.6

CCP Radiography Data Sheet

Waste Container ID: 90999

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

Comments:N/A

RTR Operator:		
Thad Hasselstrom	Thad Hasselstrom	10-30-12
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	90999	Count Sequence Number:	21487
Operator:	D3PW2DK1\operator		
Assay Start:	10/26/2012 2:58:37 PM		
Description 1:	1LANDA1662		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 20.6 kg	Net:	20.6 kg
Container:	Volume: 208.0 l	Full:	20.0 %
Density:	0.500 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:	21487	Batch Number:	1LANDA1662
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	90999	Analysis Date:	10/26/2012

Net Weight	20600.0 g			
Pu mass	7.01E+000	+-	1.15E+000	g
TRU Alpha Activity	5.89E-001	+-	7.09E-002	Ci
TRU Activity Concentration	2.86E+004	+-	3.44E+003	nCi/g
Pu-239 Equivalent Activity	6.05E-001	+-	7.09E-002	Ci
Pu-239 FGE	6.61E+000	+-	1.08E+000	g
Decay heat	1.85E-002	+-	2.20E-003	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.56E-002	1.11E-005	1.72E-006	9.30E-007
PU238	6.46E-004	1.12E-002	1.84E-003	3.44E-005
PU239	6.58E+000	4.14E-001	6.81E-002	1.27E-003
PU240	4.21E-001	9.67E-002	1.59E-002	2.97E-004
AM241	1.93E-002	6.71E-002	1.11E-002	2.06E-004
PU241	8.45E-003	8.79E-001	1.45E-001	2.70E-003
PU242	1.40E-003	5.57E-006	9.17E-007	0.00E+000
SR90	3.91E-009	5.39E-007	1.88E-007	0.00E+000
CS137	6.15E-009	5.39E-007	1.88E-007	2.22E-007
U233	<LLD	<LLD	0.00E+000	2.08E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.77E-007
U238	<LLD	<LLD	0.00E+000	5.27E-006
AM243	5.05E-004	1.02E-004	1.58E-005	2.72E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10-30-12

ITR: Beverly Bowen Date: 10/31/12

Automated Independent Technical Review

Count Sequence Number: 21487
Batch Number: 1LANDA1662
Counter ID: MCS HENC #1
Container ID: 90999
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 10/26/2012

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Results are marked as invalid.	

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Density is outside range (0.02 to 2.10 g/cc) or fill height is below 30%.	Fill height acceptable, neutron results applied.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 10-29-12

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **90999**

BDR Number: **LA12FG12048**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	8.15	U
74-82-8	Methane	9.63	U
67-56-1	Methanol	30.57	U
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	0.47	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\121031C\
Data File : 90999.D
Acq On : 31 Oct 2012 3:14 pm
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 15:23:23 2012
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.054	96	5750808	204.00	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6117018	179.25	ppmv	0.00

Target Compounds	Qvalue

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

57

91000

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

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

6.2[4] Date Processed: [illegible]

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: [illegible]

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.: [illegible]
Cal. Due Date: [illegible]

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) [illegible]
(Initial and Date)

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

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

Performed By: [illegible] / [illegible] / [illegible] / [illegible]
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91[illegible]

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 441.4 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 441.4 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:

FWMO-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.	[illegible]			
10.1[4]	Daughter Drum Bag Filter No.	[illegible]			
10.1[4]	Daughter Drum Purchase Order No.	[illegible]			
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	Repack Drums			

ATTACHMENT I
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 9000

Comments: [illegible]

11.1[1] Performed By: [illegible] / [illegible] / 1298722 / 10-15-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Tejeda / [illegible] / 1231421 / 10.7.12 / 1302
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-9-12

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.: Q13
Serial No.: HL-725
Manufacture Date: 8/11

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

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

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

Performed By: Steven Mondragon / Steven Mondragon 1104741 / 10-09-12
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/C

8.1[1] Performed By: Steven Mondragon / Steven Mondragon 1104741 / 10-09-12
Waste Handling Technician (print) Signature Z# Date

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

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

Working Copy
Date: 10-15-12

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] / [illegible]
Waste Handling Technician (print) Signature Z # 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[1] Performed By: [illegible] / [illegible] / [illegible]
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Jose Jerez / [illegible] / 221452 / 10-17-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: [illegible]

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 #: 0239225
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 #: 1CPW 5-2 SPVC
Serial #: L-3625
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
- [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 sealent 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 #: 619DS
Serial #: AM-847
Date of Manufacture: 6-12

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:	±7% 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 wtght (lbs) 74.5
File ID #: [illegible]

- [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: 10-11-12

Verifier Print: [illegible] Verifier Sign: [signature] Z#: [illegible] Date: [illegible]

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

DRUM ID#: _____

1. LID INSTALLATION	3. WEIGH DRUM ASSEMBLY
NOTE: Install lid per manufacturer's instructions ✓Mount lid with filter directly over drum seam. ✓Install ring with bolt positioned downward and directly over drum seam. ✓Engage bolt and nut and torque per manufactures instructions. NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press. ✓Tighten jam nut. Record torque wrench information: MT&E # : _____ Cal expiration date: _____ Range/ Value (ft-lbs): _____ --- Tolerance _____	Record weight information: Gross Weight(lbs.) _____ Scale ID#: _____ ✓Using a permanent marker, write the gross weight on the drum lid.
2. DRUM LABELING	**4. FINALIZE DOCUMENTATION**
NOTE: Do not cover the drum seam with any labels. ✓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.	✓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: _____ Date: _____

Verifier Print/Sign: _____ Date: 10/15/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91000 Container Type: POC Gross Weight (lbs): 438

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-455; EL-463

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

TWSR Comments: PARENT #8881562 WTS-12STD-887

Total PE-Ci Activity: 1.40E+00 Equivalent Combustible PE-Ci: 5.23E-01 AM-241 PE-Ci: 1.13E-01

Total Fissile Gram Equivalents: 15.4 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D007

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 (Production Control (Print)) Signature: Susan J. 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: 128 lb Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using WasteLoc 770. The resulting daughter POC is being repackaged to adjust the admixture/nitrate salt ratio. No chemicals present. Nitrate salts carry waste codes for chromium, lead, & mercury.

May require RWP for > 100 & < 1000 mrem/hr.

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112009 Date: 9/27/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Do not push or press on waste. Use tools to manipulate waste. Use Hexarmour gloves when processing.

Processing Determination: ✓ Accept ☐ Reject

TRU Remediation Operations Comments: Use kitty litter to mix in with waste per procedure

Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) Signature: Gilbert M.G Z Number: 149235 Date: 10-1-12

HS Review [illegible] CSP Contains lead, Chromium, Hg 9-27-12.

221452 10-1-12

Noncertified TRU Waste Drum Item Information

DrumID: 023769

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Lm)	Comments
1	20X1WS1		12.400	NITRATE SALTS	R00	3.53	S2	1/13	G468
2	2LR4ES1A		8.900	NITRATE SALTS	R00	4.15	S2	1/13	G468
3	2LR4ES1B		11.100	NITRATE SALTS	R00	5.17	S2	1/13	G468
4	2LR12ES1		16.700	NITRATE SALTS	R00	9.8	S2	1/13	G468
5	20X17WS1A		19.400	NITRATE SALTS	R00	10.19	S2	1/13	G468
6	20X17WS1B		9.600	NITRATE SALTS	R00	9.41	S2	1/13	G468
7	2LR24ES1		16.400	NITRATE SALTS	R00	19.36	S2	1/13	G468
8	2LR25ES1		18.000	NITRATE SALTS	R00	14.35	S2	1/13	G468
9	2LR26ES1		20.100	NITRATE SALTS	R00	22.31	S2	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.9

Material Type	SNM (grams)	Items Net Wt (kg)
S2	98.26	123.60
Totals	98.26	123.60

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])	91000					
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])	3959.76 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 — CCP (Print) — 237975 — Z #

Reviewed By: Nathan Miles — 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) — Signature — 190298 — Z # — 9.24.12 — Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 91000.D
Acq On : 21 Sep 2012 3:20 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 15:28:46 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.256	96	2464873	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2195177	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.786	GC1	978388m	3959.76	ppm	

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

Vocgas.m Fri Sep 21 15:28:54 2012

10-15-12

0600 Assuming WCRRF operations center - Orlando
0603 starting outside rounds.
0615 pre job being conducted by SES.
0630 completed Outside rounds.
0650 Starting inside rounds.
0744 Inside and outside rounds signed off by SES.
0815 Mode change performed TASL-69 and WCRRF yard now in operations.
0808 Starting movement into 50-69.
0817 Movement into 50-69 is complete.
0835 bagging on 90877
0842 Permission granted to lower vehicle access gates for loading of transport vehicle.
0844 bag on complete.
0919 vehicle access gates have been restored, loading of transport vehicle is complete
0957 bagging off 90877 and will bagging on 90968.
1023 bag on complete.
1114 bagging off 90968 and will be bagging on 91000.
1200 bag on complete.
1230 Operators waiting for lunch.
1324 Operators entering for operations
1428 Starting inside rounds
1450 Starting outside rounds.
1458 bagging off last drum of the day will not be bagging on another one due to not having any more straps.
1533 bag off complete.
1549 Starting movement out of 50-69
~~1632 end~~ 10-15-12
1613 Completed movement out of 50-69.
1435 end of day WCRRF operations center secure - Orlando.

No further entries this page.

0600 Assumed SOM position.

0605 Attended prejob brief conducted by SOS. Discussed RPO issues from Friday maintenance work and need to reschedule w/ workers available this Friday. OM has requested a formal post job review to be conducted.

0805 Completed mode change: WCRR yard/Bldg 50-69 from Warm/~~Cold~~ 10/15/12 Cold to Operations/Operations.

0810 (Late Entry - 0715) CSE Leonard Moore onsite to conduct measurements of FSS sprinkler heads w/ Design Engineering. Got verbal OK w/ scheduling to emerge work. Engineers delayed and rescheduling for this PM after mode change.

0830 Attended Post Job Review w/ OM, RP-1, MSS, Operations. OM will send out findings.

0945 Released W.O 446624-01 50-84 Repair Deficiency (Insulation install).

1500 Notified by SOS that all lifting straps for renesting POC's into 85 gal DM's have been used => Will not bag on any additional drums. Processing will be on hold until new straps obtained or shipment of non-POC 55's are received to process. OM notified.

1505 (Late Entry - 1400) Operators conducted lift demonstration of an empty 55 gal DM to renest into 85 using forklift and straps. Due to drum being light the choke slipped up one chime and when coming off the ground swung back & forth excessively — would require workers to get under forklift forks to steady drum.

1558 Mode change completed: WCRR yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1600 Design engineers entered facility to obtain measurements of sprinkler heads. RP-1 supervisor would not allow CSE entry into CA due to wound even though covered w/ occlusion bandaid. CSE refused to produce exception from Occ Med.

1640 Secured SOM position

10-18-12

No further entries this date

SIGNATURE
READ AND UNDERSTOOD

DATE 10/15 20 12
DATE 20

10-15-12 WCRR SOS LOG BOOK

0600 Assuming SOS position for the day. [illegible]

0615 Conducting Pre-Job brief. Continuing to process solution package 72 and having to use slings to load into 85 gallon empty drums. Reviewed procedure WCRRF Hydrant Flow Test, EP-WCRR-FP-DOP-0301, R-8

0744 SOS [illegible] 10-10-12 Signed off on rounds

0805 Mode Change In Operations in 50-69 and Yard.

1023 PIC from Inside of 50-69 reporting that the straps being used are thick and when they start to place the parent POC inside of the empty 85 gallon drum the area where they are choked at are [illegible] JY 10-15-12 rubbing against the sides and sometimes catching causing the straps to rub against the tape and possibly tearing and causing contamination. Also the first drum caught on the side [illegible] JY 10-15-12 and the drum fell to the bottom of the 85 gallon drum.

1128 I went into 50-69 to observe the loading of the Parent POC into an empty 85 gallon drum along with the RCT supervisor. We watched them lower the POC into the 85 gallon drum and observed the straps catching on the lip of the 85 and pushing against the tape and the POC. The POC was able to be lowered into the 85 by moving it around. Also witnessed the bolt being pressed against.

1215 RCT supervisor and myself reported the findings to the SOM and explained what we saw. SOM notified the Op. Manager of the situation also so that he understands and to make sure the correct straps are ordered.

1230 Operators exiting for lunch. Unable to run second crew due to two operators with wounds and unable to process waste

1324 Operators returning from lunch.

1458 Bagging off last drum for the day. Three total processed. No more slings available that are thin for nesting operations.

1533 Bag off Complete

Continued on Next Page.

10-15-12 WXRR 505 Log Book

Continued from Previous page.

10-15-12 1628 Securing 505 position for the day. [illegible]

Do further entries on this page.

5881562

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0058
Examination Date:	4/18/2013
Waste Container ID:	92206
Video/Audio Recorded Media Number:	LA-RTR2-13-0058 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.: 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:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92206

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware

AM:

OM: Scrap lead

OI:

C: Fiberboard insert sleeve, fiberboard packing material

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):	15.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.0
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	80.1
Soils (S):	
Total WMP Weight:	112.1

CCP Radiography Data Sheet

Waste Container ID: 92206

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

Comments: N/A

RTR Operator:

Benito Maestas		4/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92206	Count Sequence Number:	15564
Operator:	DCLTD231\Operator		
Assay Start:	4/19/2013 9:40:08 AM		
Description 1:	2LANDA1142		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Debris S5000		
Container Type:	55 gal 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:	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: 15564
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 92206

Batch Number: 2LANDA1142
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 4/19/2013

Net Weight	112000.0 g		
Pu mass	9.01E+001	+-	1.49E+001 g
TRU Alpha Activity	1.56E+001	+-	4.84E+000 Ci
TRU Activity Concentration	1.39E+005	+-	4.32E+004 nCi/g
Pu-239 Equivalent Activity	1.58E+001	+-	4.84E+000 Ci
Pu-239 FGE	8.50E+001	+-	1.40E+001 g
Decay heat	5.05E-001	+-	1.61E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.85E-001	1.32E-004	2.16E-005	2.53E-006
PU238	8.27E-003	1.43E-001	2.37E-002	3.60E-005
PU239	8.46E+001	5.32E+000	8.82E-001	1.34E-003
PU240	5.41E+000	1.24E+000	2.06E-001	3.13E-004
AM241	2.56E+000	8.88E+000	4.76E+000	9.57E-002
PU241	1.06E-001	1.10E+001	1.83E+000	2.78E-003
PU242	1.80E-002	7.16E-005	1.19E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.63E-007
U233	<LLD	<LLD	0.00E+000	1.12E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.54E-006
U238	<LLD	<LLD	0.00E+000	1.95E-005
AM243	7.02E-003	1.42E-003	2.33E-004	1.64E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 4/24/13

ITR: _____ Date: 4.30.13

Automated Independent Technical Review

Count Sequence Number: 15564
Batch Number: 2LANDA1142
Counter ID: HENC #2
Container ID: 92206
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 4/19/2013

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

Expert Review by: [signature] Date: 4/24/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92206**

BDR Number: **LA13FG2046**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	193.88	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130430c\
Data File : 92206.D
Acq On : 30 Apr 2013 3:47 pm (#1); 30-Apr-13, 15:47:03 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 30 15:55:25 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.604	96	4406998	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.927	117	3802172	177.00	ppmv	0.03
Target Compounds						Qvalue
1) Hydrogen	1.605	GC1	1378	193.88	ppmv	100

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

Working Copy
Date: 11-14-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 9100l

6.2[4] Date Processed: 11/14/12

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

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

4.1[6][B] Parent Waste Container RCRA Designations: 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.: 018065
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 11/14/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 9/001

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 393.6 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) 393.6 lb

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

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91001

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92378			
10.1[4]	Daughter Drum Filter No.	JL-1311		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4337			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	N/A	N/A		
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub 2 outs 18 volt batteries			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91001

Comments: Plaster, metal lid, bolts, salts, kitty litter, cardboard liner

11.1[1] Performed By: Michael Romero [signature] [illegible] 11/14/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez [signature] [illegible] 11/15/12 0710
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: 2610

5.[8] Overpack filtered vent information:

Manufacturer: NVCF/L
Model No.: 013
Serial No.: IL-255
Manufacture Date: 911

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

	Filtered Vent	2 in. Bung
M&TE No.:	046694	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 / Brandon 204702 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 / Brandon 204702 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] 149233 11-19-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-14-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92379

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 ±4% 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] 189201 11/14/12
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): 3226 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 189201 11/14/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Gilbert Martinez [signature] 149225 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#: 92378

1. Drum/Lid Assembly

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

RECORD drum information:
Purchase Request #: 416184
Lot #: 0229224
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [ ] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [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 #: 1-4337
Date of Manufacture: 9-12-12

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 ¾" bung hole, and torque
- [ ] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 019DS
Serial #: SL-13711
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:	9-26-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% CW ±6% CCW	Tolerance:	±3% CW ±6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Brandon Chavez Signature: [signature] Z#: 204792

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 75.8
File ID #: 0A465

- [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#: 204792 Date: 11-8-12
Verifier Print: Michael Romero Verifier Sign: [signature] Z#: 182723 Date: 11/14/12

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

DRUM ID#: 92378

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3/15/13

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

— Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 256.4

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date 11/14/12

Verifier Print/Sign: Michael Romero Date: 11/14/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91001 Container Type: POC Gross Weight (lbs): 389

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-383; EL-451

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

TWSR Comments: PARENT #S881562 WTS-12STD-877

Total PE-Ci Activity: 1.40E+00 Equivalent Combustible PE-Ci: 5.23E-01 AM-241 PE-Ci: 1.13E-01

Total Fissile Gram Equivalents: 15.4 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009 W 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 Wastelok 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey / Signature: Susan Ramsey / 100681 / 9/11/12

Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC
Net Wt. 79lb Parent drum (SEDs attached) was part of WCRF nitrate salt repack campaign using Wastelock 770. The resulting POC is being repackaged to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead, + mercury. No chemicals present.

May require KWP for >100 & <1000 mrem/hr

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 9/27/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use tools to manipulate waste. Do not push or press on waste. Use Hexarmour gloves when processing.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use kitty litter to mix in with waste per procedure.

Performed By: Gilbert Martinez / Gilbert Martinez / 149235 / 10-1-12

TRU Remediation Operations (Print) Signature Z Number Date

IHC Review [illegible] CSP Contains lead, chromium + Hg
9-27-12.

[illegible] 221452 10-1-12

Nonacertified TRU Waste Drum Item Information

DrumID: 923769

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	20K1RS1		12.400	NITRATE SALTS	R00	2.53	S2	1/13	G468	
2	21R4RS1A		8.900	NITRATE SALTS	R00	4.18	S2	1/13	G468	
3	21R4RS1B		11.100	NITRATE SALTS	R00	9.27	S2	1/13	G468	
4	21R12RS1		16.700	NITRATE SALTS	R00	9.8	S2	1/13	G468	
5	20K17WS1A		10.400	NITRATE SALTS	R00	10.19	S2	1/13	G468	
6	20K17WS1B		9.600	NITRATE SALTS	R00	9.41	S2	1/13	G468	
7	20R24RS1		18.400	NITRATE SALTS	R00	19.38	S2	1/13	G468	
8	21R25RS1		15.000	NITRATE SALTS	R00	14.38	S2	1/13	G468	
9	21R26RS1		20.100	NITRATE SALTS	R00	22.21	S2	1/13	G468	

Nonacertified Waste Drum Material Summary

Gross Wt (kg): 199.9

Material Type	SNM (grams)	Items Net Wt (kg)
S2	98.26	123.60
Totals	98.26	123.60

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])	91001					
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])	193.11 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 : 91001.D
Acq On : 21 Sep 2012 2:15 pm (#1); 21 Sep 2012 2:14 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 14:23:12 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	2643362	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2310190	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.323	GC1	47715m	193.11 ppm	

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

Vocgas.m Fri Sep 21 14:23:20 2012

11-14-12
0540 Assuming WCRF operations with JC crew.
0550 Beginning outside rounds.
0558 Beginning inside rounds.
0608 Outside rounds complete
0615 Inside rounds complete. Pre-job being conducted by SCS.
0642 Pre-job completed.
0643 Roll call for OIA both rounds reviewed by SCS.
0651 We are now in operations. Mode change complete.
0735 Initiating drum movement from storage position to 5064.
0736 Bagging on drum #90933.
0744 Drum movement in facility complete. Bag on complete.
0807 Bagging off 90933, bagging on 90942.
0823 Bag on complete.
0828 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Utah.
0835 Bagging off 90942, bagging on 91001.
0848 Bag on complete.
0916 Transfer vehicle loaded. Vehicle access gates returned. Transportainers closed and latched.
0920 Bagging off 91001, bagging on 90991.
0930 Bag on complete.
1026 Bagging off 90991.
1033 Bag off complete.
1045 Initiating drum movement from 5064 to a storage cell.
1100 Drum movement complete. All inventory has been removed from the facility.
1118 Mode change complete. We are now in COLD in 5069 and warm in WCRRF yard.
1350-1415 JC 11-14-12 Beginning outside rounds.
1400 Begin inside rounds.
1410 Outside rounds complete.
1422 Inside rounds complete.
1511 Clockbox maintenance performed on clockbox and is completed.
1512 Both rounds reviewed by SCS.
11-14-12 1632 Entry log, 2 visitors south [illegible]
Do further entries this page

11/14/12

0600 Assumed WCRR SOM position
0615 Attended pre job brief conducted by SOS. Discussed work plan for the day, night time driving safety tips, sharps in glove box.
0659 Completed mode change: WCRR Yard / Bldg 50-69 from Warm / ~~Cold~~ 11/14/12 Warm to Operations / Operations.
0736 First drum bagged onto WCG
1020 Bagging off 4th (last drum) to be processed today
1118 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.
1120 (Late Entry 1030) Received copy of USQ and WEF required to ship 3 TRU drums out of WCCR
1240 Verified w/ OSPRT that all TWSR's for tomorrows shipment have been generated and checked w/ inventory control that 22 containers will be on tomorrows shipment
1245 (Late Entry 1200) Status and PM on 1200 call in WCRR and DUS work/issues.
1250 Reviewed MSS work packages for Dec PM's, standing WO's for FY 13.
1347 Released WO # 416805-06 54-WCRRF FY12 Relamping for 196 and Bldg 54,
1400 Attended mandatory meeting @ NSSB regarding major issues at LANL and other DOE sites raising management concerns.
1515 SOS reported that WCG glovebox maintenance was conducted including thourough wipedown of glovebox, replacing tape, no gloves were changed.
1530 OCO reported that electricians replaced lights inside 196 however outside light fixtures will require replacement.
1630 Secured SOM position.

No further entries this date

11/14/12

11-14-12 WCRR SCS Log Book

0000 Assuming SCS position for the day. Reviewed SCS logbook for previous operations found no

0015 Started Pre-Job brief Safety Topic was Motors watching out for pedestrians during night time operations performing outside rounds should have a flashlight on when inspecting the boilers along the side of the load shipment out 4 trains remaining to process, going to CAD this afternoon.

0020 Pre-Job brief completed

0040 Inside and Outside rounds signed off the second SCS

0054 Work Change - Gratchens in the field on 50-09.

0330 Bagging one first drum for the day

1032 Bagging off last drum for the day.

1115 Work Change - Going into CAD on 50-09 field will be in CAD. Received 4 pieces coming from Sentran Package 72. 4 Daughters generated no PCN's

20 Crew going into 2-09 to perform glacier maintenance performing inspection on glacier, cleaning the inside of the glacier, general housekeeping inside of 50-09

1550 Crew out from doing Glacier maintenance

11-14-12 1600 Securing SCS position for the day from J.J.

HA

No further entries on this page

CCP Radiography Data Sheet

5881562

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0013
Examination Date:	1/28/2013
Waste Container ID:	92378
Video/Audio Recorded Media Number:	LA-RTR2-13-0013 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 116.5 kg Tare Wt.: 33.4 kg Net Wt.: 83.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92378

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal, hardware, metal lid

AM:

OM:

OI:

C: Fiberboard packing material, fiberboard insert 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):	18.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	15.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	44.1
Soils (S):	
Total WMP Weight:	83.1

CCP Radiography Data Sheet

Waste Container ID: 92378

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

Comments: N/A

RTR Operator:

Benito Maestas	[signature]	1/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92378	Count Sequence Number:	21954
Operator:	D3PW2DK1\operator		
Assay Start:	1/31/2013 12:52:58 PM		
Description 1:	1LANDA1705		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 83.1 kg	Net:	83.1 kg
Container:	Volume: 208.0 l	Full:	95.0 %
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:	21954	Batch Number:	1LANDA1705
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:	92378	Analysis Date:	1/31/2013

Net Weight	83100.0 g		
Pu mass	2.04E+001	+-	4.34E+000 g
TRU Alpha Activity	4.86E+000	+-	1.79E+000 Ci
TRU Activity Concentration	5.85E+004	+-	2.15E+004 nCi/g
Pu-239 Equivalent Activity	4.91E+000	+-	1.79E+000 Ci
Pu-239 FGE	1.92E+001	+-	4.07E+000 g
Decay heat	1.59E-001	+-	5.97E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.99E-002	5.71E-005	7.92E-006	2.25E-006
PU238	1.87E-003	3.24E-002	6.89E-003	3.47E-005
PU239	1.91E+001	1.20E+000	2.56E-001	1.29E-003
PU240	1.22E+000	2.81E-001	5.98E-002	3.01E-004
AM241	9.63E-001	3.34E+000	1.77E+000	5.79E-002
PU241	2.43E-002	2.52E+000	5.37E-001	2.70E-003
PU242	4.08E-003	1.62E-005	3.44E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.66E-007
U233	<LLD	<LLD	0.00E+000	5.53E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.57E-006
U238	<LLD	<LLD	0.00E+000	1.31E-005
AM243	3.28E-003	6.63E-004	9.35E-005	7.24E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-4-13

ITR: _____ Date: 2-5-2013

Automated Independent Technical Review

Count Sequence Number: 21954
Batch Number: 1LANDA1705
Counter ID: MCS HENC #1
Container ID: 92378
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/31/2013

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

Expert Review by: Sheri Chandler Date: 2-3-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92378**

BDR Number: **LA13FG8009**

Sampling Date: **2/6/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130206C\
Data File : 92378.D
Acq On : 6 Feb 2013 2:12 pm (#1); 6 Feb 2013 2:11 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 14:19:37 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	2663931	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2369314	179.50	ppm	0.00

Target Compounds	Qvalue

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

35

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

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91002

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: [illegible] [signature] [illegible] 2-9-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	91002	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	399.6	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)	399.6	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:

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91002

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92890			
10.1[4]	Daughter Drum Filter No.	KL-392			
10.1[4]	Daughter Drum Bag Filter No.	L-6071			
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 (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub out Bags/ Kitty litter			

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91002

Comments: ROOM TRASH, PLASTICS, SALTS, POC LIDS, CARD-BOARD, KITTY LITTER

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

11.1[7] Reviewed By: GMK / [illegible] 149235 / 2-10-13 0830
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2-8-13 CW

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.: SL-1905
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
Waste Handling Technician (print) Signature Z# Date 12-8-13

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
Waste Handling Technician (print) Signature Z# Date 2-8-13

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

8.1[7] Reviewed By:
Supervisor or designee (print) Signature Z# Date 2-10-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92891

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: +/- 3% CW +/- 6% CCW

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

Performed By: Frederick Archuleta / [signature] 028074 / 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): 324.8 lb

Comments: NO comments

8.1[1] Performed By: Frederick Archuleta / [signature] 028074 / 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: GMK / [signature] 149235 / 2-10-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92890

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 501011
Lot #: 0233370
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: GCPVC1.5-25PVC
Serial #: L-60071
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 #: 0905
Serial #: VL 392
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040674	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	110-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/- 4% cw = +/- 66 cw	Tolerance:	+/- 3% & +/- 6% cw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Kevin Belusak Signature: Kevin B Z#: 238199

5. Weigh Drum Assembly

RECORD weight information
Tare wtight (lbs) 76.0 lbs
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Kevin Belusak Operator Sign: Kevin B Z#: 238199 Date: 02/07/13
Verifier Print: Fredrico Abdulcta Verifier Sign: [signature] Z#: 228826 Date: 2-9-13

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

DRUM ID#: 92890

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038367

Cal expiration date: 3-16-13

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

— Tolerance +/- 3% cw +/- 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 276.8

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: [signature] Date 2-9-13

Verifier Print/Sign: Bri Dallmyer Date: 2-09-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91002 Container Type: POC Gross Weight (lbs): 394

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-443; EL-496

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

TWSR Comments: PARENT #S881562 WTS-12STD-899

Total PE-Ci Activity: 1.40E+00 Equivalent Combustible PE-Ci: 5.23E-01 AM-241 PE-Ci: 1.13E-01

Total Fissile Gram Equivalents: 15.4 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 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/Zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey (Production Control (Print)) Signature: [signature] 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: 841b 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], lead, and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 10/2/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use proper PPE when handling waste inside of 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 procedure.

Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: [signature] Z Number: 221452 Date: 10-4-12

RR Z# 249250 10/9/12

IHS Review RB 206362 10.3.12

Noncertified TRU Waste Drum Item Information

DrumID: 023769

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	2OX1WS1		12.400	NITRATE SALTS	R00	3.53	52	1/13	G468	
2	2LR4ES1A		8.900	NITRATE SALTS	R00	4.15	52	1/13	G468	
3	2LR4ES1B		11.100	NITRATE SALTS	R00	5.17	52	1/13	G468	
4	2LR13ES1		16.700	NITRATE SALTS	R00	9.8	52	1/13	G468	
5	2OX17WS1A		10.400	NITRATE SALTS	R00	10.19	52	1/13	G468	
6	2OX17WS1B		9.600	NITRATE SALTS	R00	9.41	52	1/13	G468	
7	2RR24ES1		16.400	NITRATE SALTS	R00	19.35	52	1/13	G468	
8	2LR25ES1		18.000	NITRATE SALTS	R00	14.35	52	1/13	G468	
9	2LR26ES1		20.100	NITRATE SALTS	R00	22.31	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	98.26	123.60
Totals	98.26	123.60

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9/28/12

Container No. (5.[1])	91007					
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])	205.03 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)), 237975 (Z #)

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

Comments: None

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

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

6.1[3] Performed By: SUSAN S. RAMSEY (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 91002.D
Acq On : 28 Sep 2012 10:09 am (#1); 28 Sep 2012 10:08 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 10:16:30 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	2758737	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2330187	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.315	GC1	50659m	205.03 ppm	

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

Vocgas.m Fri Sep 28 10:16:39 2012

2/9/13 Assuming operations center - B. Fordham

0600 PRE-JOB BRIEFING BEING CONDUCTED BY SOS

0615 STARTING INSIDE ROUNDS AT 0633

0633 STARTING OUTSIDE ROUNDS AT 0644

0644 ITEM #61 on INSIDE ROUNDS IS OOS, POD is inplace, ok to proceed

0656 ITEM #3 on outside ROUNDS IS UNSAT, FSR inplace, ok to proceed

0657 INSIDE ROUNDS complete

0658 completed outisid Rounds at 0711

0711 ROUNDS HAVE BEEN SIGNED OFF BY SOS

0713 Computer issues, DATABASE IS DOWN, unable to track TSR's

0837 MANUALLY VERIFIED TSR TRACKING, UPDATED THE STATUS BOARD

0840 MODE CHANGE TO operations

0845 BAGGED on S823165 PPE CHECK SAT

0851 BAGGING OFF AND BAGGING on 90973

0949 BAGG on complete

1024 Pausing work Due to PIN FALLING OFF OF THE DRUM LIFT CREW WAS PLACED everything in a SAFE configuration.

1032 Continuing work PER SOM, to finish processing current DRUM on the lift and the glovebox after processing this DRUM facility will go to cold so maintnance can fix drum lift, PPE CHECK SAT

1033 OPS MANAGER notified, with his concurance "imediate operability determination" performed, statusing the DRUMLIFT as operable. Do not need to go to cold CAN be performed in warm

1036 MOVEMENT OF 8 drum out of facility to transportainers

1109 Movement out of facility complete

1127 DRUM # 90973 Being BAGGED OFF AND ANOTHER DRUM is not being bagged on, mechanics are coming to replace pins on drum lift, PPE CHECK SAT.

1147 Bagoff complete, facility is in a safe configuration.

1208 FACILITY IS IN WARM STANDBY MODE, MODE CHANGE PERFORMED IN ORDED TO FIX THE DRUMLIFT, MECHANICS ARE ON Sight

1245 MECHANIC ENTERING THE FACILITY TO REPAIR THE CLIPS ON THE DRUM LIFT

1320 operators are conducting drum lift inspection as part of post inspections upon mechanics fixing the DRUMLIFT

continued on next page B. FORDHAM

- Int daughter 9/10/11

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

1400 Drumlift inspection complete
1412 Drumlift inspection signed off by CSE
1429 MODE CHANGE TO operations mode
1434 Bagging on 91002
1447 BAG on complete PPE CHECK SAT
1455 STARTED INSIDE ROUNDS
1512 Item #61 on inside Rounds is OOS, POD inplace, ok to pr
1518 completed inside Rounds
1527 BAGGING OFF AND BAGGING on Drum #91018
1553 Bag on Complete PPE CHECK IS SAT
1600 STARTED outside rounds
1606 Item #3 on the outside rounds is unsat, FSR inplace ok to proceed.
1620 outside Rounds complete
1621 Bagging on and bag off, bagged on Drum #90997
1623 SOS signed off on afternoon rounds
1645 BAGG on complete PPE CHECK IS SAT
1740 BAGGING OFF LAST DRUM PPE CHECK IS SAT
1752 BAG OFF complete facility is in a safe configuration
1800 Mode change to warm standby
2-4-13 1830 END OF DAY WCRRF IS SECURE B. Fordham
by HM

NO MORE ENTRIES THIS PAGE

2/9/13

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

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

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

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

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

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

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

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

1025 RCRA inspections completed, SAT.

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

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

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

1245 Completed Mode Change WCRR ~~Op~~ 2/9/13 Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

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

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

1425 Drum Lift work completed and signed off by CSE.

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

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

1830 Secured SOM, position. L

L

2/9 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 made change complete WCRRF In operations
0851 Bagged on First drum of day 5823165 PPE Check sat
0949 Bagging off and bagging on 90973 PPE Check sat
1032 Notified by Inside Personel That Pin on Lift Popped off
1033 Per Sum Finish processing drum on After processing drum will go to warm to perform repairs.
1076 Per Om drum lift declared operable.
1147 Drum 90973 will be bagged off and will not bag nothing on to do maintanance on Lift. [illegible] PPE Check sat
1238 Maintanance Crew Arrived to replace clip on pin.
1315 Maintanance entering Facility to perform work
1406 2 clips were replaced on Lift maintanance complete Also Inspection Complete need CSE sign off. CSE Is here.
1407 late entry mode Change complete WCRRF In warm 1245 GM
1412 Inspection signed off by All needed.
1429 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 shift Securing SOS Position [signature]
HM

~~No further entries on this page~~

CCP Radiography Data Sheet

881562

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:	92890
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.: 125.5 kg Tare Wt.: 33.4 kg Net Wt.: 92.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 92890

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, metal hardware

AM:

OM: Scrap lead

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):	2.0
Other Inorganic Materials (OI)	
Cellulosics (C):	5.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	76.1
Soils (S):	
Total WMP Weight:	92.1

CCP Radiography Data Sheet

Waste Container ID: 92890

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:	92890	Count Sequence Number:	15097
Operator:	DCLTD231\Operator		
Assay Start:	2/21/2013 1:31:57 PM		
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: 92.1 kg	Net:	92.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
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:	15097	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:	92890	Analysis Date:	2/21/2013

Net Weight	92100.0 g		
Pu mass	2.28E+001	+-	5.61E+000 g
TRU Alpha Activity	7.04E+000	+-	2.88E+000 Ci
TRU Activity Concentration	7.65E+004	+-	3.13E+004 nCi/g
Pu-239 Equivalent Activity	7.10E+000	+-	2.88E+000 Ci
Pu-239 FGE	2.15E+001	+-	5.27E+000 g
Decay heat	2.31E-001	+-	9.61E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.11E-001	7.89E-005	1.27E-005	1.61E-006
PU238	2.10E-003	3.63E-002	8.92E-003	3.83E-005
PU239	2.14E+001	1.35E+000	3.31E-001	1.42E-003
PU240	1.37E+000	3.15E-001	7.74E-002	3.33E-004
AM241	1.54E+000	5.35E+000	2.86E+000	7.17E-002
PU241	2.71E-002	2.81E+000	6.93E-001	2.98E-003
PU242	4.57E-003	1.81E-005	4.46E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.59E-007
U233	<LLD	<LLD	0.00E+000	8.11E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.54E-006
U238	<LLD	<LLD	0.00E+000	1.62E-005
AM243	4.35E-003	8.79E-004	1.41E-004	1.15E-005
CM243	1.11E-006	5.78E-005	2.51E-005	2.01E-005

Errors quoted at 1.000 sigma

Operator: Ann Barton Date: 2/25/13

ITR: [illegible] Date: 2/26/13

Automated Independent Technical Review

Count Sequence Number: 15097
Batch Number: 2LANDA1103
Counter ID: HENC #2
Container ID: 92890
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. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 2-25-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92890**

BDR Number: **LA13FG8015**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	191.92	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130301c\
Data File : 92890.D
Acq On : 1 Mar 2013 1:59 pm
Operator : NW
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 14:07:44 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.249	96	2292259	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2052601	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.302	GC1	47421m	191.92 ppm	

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

Working Copy
Date: 2-1-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91003

6.2[4] Date Processed: 2-1-13

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

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

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

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

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

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

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

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

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

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

Performed By: Eddie Rios / Eddie Rios 187822 2-1-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91003

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 432.0 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 432.0 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	/	/	/
EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91003

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92913		N/A	
10.1[4]	Daughter Drum Filter No.	KL-427			
10.1[4]	Daughter Drum Bag Filter No.	C-6185			
10.1[4]	Daughter Drum Purchase Order No.	501011			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N/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	None			
10.3[5][A]	Free Liquid Volume/Units	None			
10.3[7][A]	Opaque/Non-penetrable Item Description:	See Comments			
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	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	See Comments			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 9/0C'3

Comments: fitty litter, stubs, pic lot,

11.1[1] Performed By: [illegible] / [illegible] [illegible] 2-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [illegible] / 221452 / 2-12-13 0917
SOS or designee (print) Signature Z # Date/Time

Date: 2-10-13a

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 2011

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 32-1918
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:	2-26-13	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] 220742 / 2-10-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 220742 / 2-10-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Jose Jerez / [signature] 221452 / 2-12-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-11-13 jr

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92916

7.[25] Overpack drum closure ring torque wrench information: 2-12-13
M&TE No.: ~~0388~~703867
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: Eddie Rios / Eddie Rios 188221 2-11-13
Waste Handling Technician (print) Signature Z # Date

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

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

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-8-13

7.[36][D] 85-gal overpack drum gross weight (lb): 326 lb

Comments: N/A

8.1[1] Performed By: Eddie Rios / Eddie Rios 188221 2-11-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Jose Jerez / Jose Jerez 221452 2-12-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-7-13

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

Drum ID#: 92915

1. Drum/Lid Assembly

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

RECORD drum information:
Purchase Request #: 501011
Lot #: 0233326
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 1.5-25 PVC
Serial #: 6 8185
Date of Manufacture: 11/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:
Manufacturer: Nucfil
Model #: ~~02 SBC 427~~ 01403
Serial #: ~~02 SBC 6~~ KC-427
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-12
Range (ft-lbs or in-lbs): 40-200
Tolerance: ± 4% cw and ± 6% ccw

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

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Kevin Belousek Signature: [signature] Z#: 238199

5. Weigh Drum Assembly

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

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

6. Label Drum Assembly

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

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

Operator Print: Kevin Belousek Operator Sign: [signature] Z#: 238199 Date: 02/07/13
Verifier Print: Edward King Verifier Sign: [signature] Z#: 187822 Date: 2-11-13

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

DRUM ID#: 92915

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% / +-6%

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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): 283.2

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: Eddie Rios Date: 2-11-13

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

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 91003 Container Type: POC Gross Weight (lbs): 426

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-328; EL-396

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

TWSR Comments: PARENT #S881562 WTS-12STD-809

Total PE-Ci Activity: 1.40E+00 Equivalent Combustible PE-Ci: 5.23E-01 AM-241 PE-Ci: 1.13E-01

Total Fissile Gram Equivalents: 15.4 Total Surface Dose Rate (mrem/hr): 2

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

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

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

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009
Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volume of kitty litter/zeolite must be mixed with 1:0 volume of nitrate salts

Performed By: Susan Ramsey / for S. Ramsey / 100681 / 9/11/12
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 116 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 ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Do not push or press on waste. Use proper PPE to process waste; 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 Perez / Jose Perez / 221452 / 10-11-12
TRU Remediation Operations (Print) Signature Z Number Date

OK Z# 249750 10/19/12

IHS REVIEW: RS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 023769

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Lm)		Comments
1	20X1WS1		12.400	NITRATE SALTS	R00	3.53	S2	1/13	G468	
2	2LR4ES1A		8.900	NITRATE SALTS	R00	4.15	S2	1/13	G468	
3	2LR4ES1B		11.100	NITRATE SALTS	R00	5.17	S2	1/13	G468	
4	2LR12ES1		18.700	NITRATE SALTS	R00	9.8	S2	1/13	G468	
5	20X17WS1A		10.400	NITRATE SALTS	R00	10.19	S2	1/13	G468	
6	20X17WS1B		9.600	NITRATE SALTS	R00	9.41	S2	1/13	G468	
7	2KR24ES1		16.400	NITRATE SALTS	R00	19.35	S2	1/13	G468	
8	2LR25ES1		18.000	NITRATE SALTS	R00	14.35	S2	1/13	G468	
9	2LR26ES1		20.100	NITRATE SALTS	R00	22.31	S2	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.9

Material Type	SNM (grams)	Items Net Wt (kg)
S2	98.26	123.60
Totals	98.26	123.60

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])	91003					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	274.26 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~~ NCM 10.4.12 Per attached email, Container was verified as a POC.

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

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

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 91003.D
Acq On : 3 Oct 2012 2:24 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 14:48:02 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	2174620	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1957637	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.315	GC1	67765m	274.26 ppm	

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

Vocgas m Wed Oct 03 14:48:23 2012

2-11-13
0[illegible] Commence work operations with J Coleman
0[illegible] Pre-job being conducted by SOS.
0[illegible]42 Pre-job concluded.
0[illegible]50 Beginning outside rounds
0[illegible]58 Item #3 on the rounds is unsat. FSR in place, okay to proceed with the rounds.
0[illegible]05 Beginning inside rounds
0708 Outside rounds completed.
0722 Item #6.1 on the rounds is OOS PoD in place, okay to proceed with the rounds.
0725 Inside rounds completed.
0730 ~~A. reported~~ JC 2-11-13 An operator notified the SOM that the drum lift has a piece of tape on the clip to prevent someone from knocking it off. ~~EES~~ 2-11-13 SOM + SSIO questioning if a temp mod should be in place.
0755 SOM spoke with Engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.
0838 The following e-mail was received from the CSE regarding the tape on the clip of the drum lift:

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

The operator has been given permission to replace the filament tape with clear tape to be able to perform inspections on the clip.

0916 Both rounds reviewed by SOS.
0920 Mode change complete. We are now in operations in 5-669 and WCRRF yard.
0921 Permission granted to lower the vehicle access gates to load transport vehicle for a shipment to Areva
0938 Bagging on drum #91067.
Continued on next page. J Coleman

2-11-13 Continued from previous page - Holeman
0948 Bag on completed. PPE check w Sgt.
1053 Bagging off 91002, bagging on 90995.
1120 Initiating a drum movement from S & 2-11-13 transport to Sota9.
1129 Bag on completed. PPE check w Sgt.
1145 Drum movement into the facility complete.
1330 Bagging off 90995, bagging on 90989.
1342 Permission granted to lower the vehicle access gate, to begin receipt of drums from Area 6.
1348 Bag on completed. PPE check w Sgt
1442 Bagging off 90989, bagging on 91003.
1508 Bag on completed. PPE check w Sgt.
1540 Notified by operator that the 85 gallon ~~grapple~~ 2-11-13 grapple attachment is currently broken. The operators were using it to off load the transport vehicle when they noticed that the drum was not started correctly. Upon further inspection they found a weld was broken & not fast on both sides. SCM.
1621 Bagging off 91003, bagging on 90923.
1625 Initiating a Caution Tag # 2-B-0003 for the ~~[illegible]~~ 2-11-13 graders.
1652 Bag on completed PPE check w Sgt.
1653 Late entry at 1650, inside rounds begun @
1700 Item # 6P is CCS. PCD in place, continuing rounds. Beginning outside rounds.
1701 Late entry at 1650, the mechanics arrived to adjust the 2nd grader that we have for the 85 gallon drums. Continuing to off load the transport vehicle. PC. ~~Inside rounds complete~~, sc 2-11-13
1716 The shipment from Area has been accepted. Vehicle access gates restored. Inside rounds completed.
1725 Outside rounds completed.
1752 Bagging off 90923
1830 Both rounds reviewed by SCS
1831 Late entry at 1815, bag off complete. PC
Continued on next page - Holeman

Continued from previous page. Coleman
made change complete. We are now in warm standby in 50-
an 2 WCCF Card.
End of day. OOC position secured Coleman

No further entries this page.

PROJECT NAME 2/11/13 NOTEBOOK NO.

0000 Reviewed shift turnover from previous shift and assumed the WCRR SOM position. [signature]
0015 Attended the pre-job briefing conducted by SDS. Discussed bad games discovered on 2/8/13 with team (incoming new shift).
0700 Call in with TA54 SOM. Statused WCRR work for the day. Will be emerging receipt from Area 9.
0730 Notified by the operator that the drum lift clip had a piece of tape on it. Per CSE clear packing tape was placed on clips to prevent knocking them off pins. SOM and SSO concerned and questioning if a wire mesh should be in place of the drum lift needs tape removed.
0740 SOM attempting to speak with CSE and OM. No answer.
0755 Engineer Manager called back SOM. Concerns of SOM and SSO were discussed with her. She will call back with further recommendation after she speaks to CSE.
0830 Received an e-mail from CSE on permission to use clear tape on WCRR drum lift hinge pin clip.
0910 Permission granted to proceed per CSE and OM.
0915 Rate entry 0820 - SOM Phase II Code
0916 Rate entry 0910 - SOM back from Phase II.
0920 Mode change complete WCRR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.
0938 Logging on first drum of the day.
1040 SOM going to attend Drum Venting meeting at Pueblo Complex for WCATS.
1145 SOM returning from Drum Venting meeting
1200 Call in meeting with OM and project manager.
1300 SOM attending training at WRTC.
1420 SOM back from training.
1538 Notified by SDS that while the operators were receiving an incorrect moment, upon inspection of the 85 gallon drum grapple they noticed a cracked weld. Operations immediately stopped and made notifications. A caution tag was placed untitled by OCC per SOM.
1600 Area 9 has a certified drum hauler to lend operations at WCRR. An operator is in route to pick up.
1628 Per telecom with TANE IH the borrowed drum hauler/grapple is rated for 1500 lbs however the maximum weight to be imposed will not exceed 1000 lbs. Per IH ok to proceed in using drum hauler/grapple.
1630 Mechanic came by to adjust 55/85 drum hauler/grapple that WCRR had on site but didn't know how to adjust. SDS confirmed that it is certified and approved for use.

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

PROJECT NAME 2/11/13 continued NOTEBOOK NO.

1832 Mode change complete WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.
1845 Securing the SOM position. [signature]

No further entries this pg

SIGNATURE [signature] DATE 2/11 20 13
READ AND UNDERSTOOD _____ DATE _____ 20 _____

2-11-13 WCRR SOS Log Book

0600 Assuming SOS position for the day. [illegible]

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

0640 Pre-Job brief complete.

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

0755 SOM spoke with engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.

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

0916 Signed off on both rounds, inside and outside.

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

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

1058 Bagging off first drum, Bagging on Second

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

1442 Bagging off drum number three, Bagging on number four

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

Continued on following Page

being tagged out. The operators observed it happ
while unloading an 85 gallon.
1621 Bagging off drum number four and bagging on
drum number five
1625 Caution Tag placed on 85 gallon drum gridsbeer
that is broken
1700 Operator notifying that Parent drum that is
bagged on is frozen on the bottom and may
take longer to process. Operators were able to
pull all of the material out. Operators are
breaking it ~~up~~ up into smaller pieces to add ki
litter to.
1745 Starting Bag off last drum for the day
1830 Signed off on inside and outside rounds.
1855 Mode Change. WKRR 50-69 and Yard are in WARM.
1845 Securing 505 position for the day. Processed 5 parents
generated 5 daughters. No POC's, all from SP#72

No further entries on this Page.

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

588562

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0032
Examination Date:	2/25/2013
Waste Container ID:	92915
Video/Audio Recorded Media Number:	LA-RTR2-13-0032 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 135.0 kg Tare Wt.: 33.4 kg Net Wt.: 101.6 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: 92915

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Pipe component lid, metal hardware

AM:

OM: Scrap lead

OI:

C: Fiberboard

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 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):	13.0
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	54.6
Soils (S):	
Total WMP Weight:	101.6

CCP Radiography Data Sheet

Waste Container ID: 92915

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

Comments: N/A

RTR Operator:

Michael Simmons		2/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92915	Count Sequence Number:	22167
Operator:	D3PW2DK1\operator		
Assay Start:	3/1/2013 12:23:17 PM		
Description 1:	1LANDA1722		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 102.0 kg	Net:	102.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.610 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 22167
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92915

Batch Number: 1LANDA1722
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 3/1/2013

Net Weight	102000.0 g		
Pu mass	1.41E+002	+-	2.34E+001 g
TRU Alpha Activity	1.99E+001	+-	5.24E+000 Ci
TRU Activity Concentration	1.95E+005	+-	5.14E+004 nCi/g
Pu-239 Equivalent Activity	2.02E+001	+-	5.24E+000 Ci
Pu-239 FGE	1.33E+002	+-	2.19E+001 g
Decay heat	6.40E-001	+-	1.74E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.11E-001	1.51E-004	2.57E-005	4.50E-006
PU238	1.30E-002	2.24E-001	3.72E-002	3.42E-005
PU239	1.32E+002	8.32E+000	1.38E+000	1.27E-003
PU240	8.46E+000	1.94E+000	3.23E-001	2.97E-004
AM241	2.70E+000	9.38E+000	5.05E+000	9.59E-002
PU241	1.67E-001	1.74E+001	2.88E+000	2.65E-003
PU242	2.82E-002	1.12E-004	1.86E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.03E-006
U233	<LLD	<LLD	0.00E+000	1.05E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.81E-006
U238	<LLD	<LLD	0.00E+000	1.99E-005
AM243	6.27E-003	1.27E-003	2.19E-004	1.41E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 3-6-13

ITR: [signature] Date: 3.6.13

Automated Independent Technical Review

Count Sequence Number: 22167 Batch Number: 1LANDA1722
Counter ID: MCS HENC #1
Container ID: 92915
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/1/2013

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

Expert Review by: Sheri Chamberlin Date: 3-5-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92915**

BDR Number: **LA13FG8016**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130308c\
Data File : 92915.D
Acq On : 8 Mar 2013 1:50 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 14:03:37 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	2152972	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	1929553	179.50 ppm	0.00

Target Compounds	Qvalue

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

Working Copy
Date: 10-4-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91004

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

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

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

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

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

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

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

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

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

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

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

Performed By: Clayton Mullins, CP 240092, 10/4/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91004

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 394.8 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) 394.8 lb

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

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

NA

EWMO-FOD (print) Signature / Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91004

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92166			
10.1[4]	Daughter Drum Filter No.	AM-762		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-3724			
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)	N/A			
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units			N/A	
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	bag-out stubs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91004

Comments: stainless steel lid, cardboard, plastic, nitrite salts, Kitty litter

11.1[1] Performed By: Clayton Mullins [signature] 240041 10/4/12
Waste Handling Tech (print) Signature I # Date

11.1[7] Reviewed By: Jose Jerez [signature] 221452 10-9-12 0810
SOS or designee (print) Signature I # Date Time

Working Copy
Date: 10-2-12 w

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HL-964
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% 24-144	16-80

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

8.1[7] Reviewed By: Jose Jerez Jose Jerez 221452 10-9-12
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92168

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16-80
Tolerance: ±3% cw / ±6% ccw

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

Performed By: Clayton Mullins / [signature] 240092 10/4/12
Waste Handling Technician (print) Signature Z# Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 323.4 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins / [signature] 240092 10/4/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Jose Jerez / [signature] 221452 10-9-12
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92166

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 #: 416 265
Lot #: 204 225
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 #: UCPVC 1.5-25PVC
Serial #: L-3724
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 liner/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. Iceball 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: Ourfil
Model #: 013 DS
Serial #: Am — 742
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:	10-15-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±0% ccw

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

[x] Yes [ ] No

Print Name: Michael Romero Signature: Michael Romero Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 74.4
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Michael Romero Operator Sign: Michael Romero Z#: 182723 Date: 10-2-12

Verifier Print: Clayta Mullins Verifier Sign: [signature] Z#: 240094 Date: 10/4/12

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

DRUM ID#: 92166

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 _____

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.): 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: Clyde Mullis Date: 10/4/12

Verifier Print/Sign: Brandy Chavez Date: 10-4-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91004 Container Type: POC Gross Weight (lbs): 390

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-439; EL-498

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

TWSR Comments: PARENT #S881562 WTS-12STD-903

Total PE-Ci Activity: 1.40E+00 Equivalent Combustible PE-Ci: 5.23E-01 AM-241 PE-Ci: 1.13E-01

Total Fissile Gram Equivalents: 15.4 Total Surface Dose Rate (mrem/hr): 2

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

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ✓ Repack

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

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

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

Performed By: Susan Ramsey / [signature] / 100681 / 9/11/12

Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☒ Accept Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 8 lb. Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using WasteLoc 770. This resulting daughter is being repacked to adjust admixture/nitrate salt ratios. Nitrate salts carry waste codes for chromium (D007), lead (D008), and mercury (D009). No haz ~~waste~~ chemicals present

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

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

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

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

Other Specific Safety Concerns:

Processing Determination: ☑ Accept Reject

TRU Remediation Operations Comments: Ensure kitty litter is bagged in

Performed By: Gilbert Martinez / [signature] / 149235 / 9.26.12

TRU Remediation Operations (Print) Signature Z Number Date

HS Review [signature] CSP, Contains chromium, lead, and Hg
9-26-12

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

Noncertified TRU Waste Drum Item Information

DrumID: 033760

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	2OX1WS1		12.400	NITRATE SALTS	R00	3.83	S2	1/13	G468	
2	2LR4RS1A		8.900	NITRATE SALTS	R00	4.15	S2	1/13	G468	
3	2LR4RS1B		11.100	NITRATE SALTS	R00	5.17	S2	1/13	G468	
4	2LR12RS1		16.700	NITRATE SALTS	R00	9.8	S2	1/13	G468	
5	2OX17WS1A		10.400	NITRATE SALTS	R00	10.19	S2	1/13	G468	
6	2OX17WS1B		9.600	NITRATE SALTS	R00	9.41	S2	1/13	G468	
7	2RR24RS1		16.400	NITRATE SALTS	R00	19.35	S2	1/13	G468	
8	2LR25RS1		16.000	NITRATE SALTS	R00	14.35	S2	1/13	G468	
9	2LR26RS1		20.100	NITRATE SALTS	R00	22.31	S2	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.9

Material Type	SNM (grams)	Items Net Wt (kg)
S2	98.36	122.60
Totals	98.36	122.60

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])	91004					
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])	153.90 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 (I.D.#)

Reviewed By: Sara Aragon (CCP (Print)) 237975 (I.D.#)

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 (I.D.#) 9.24.12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 91004.D
Acq On : 21 Sep 2012 12:33 pm (#1); 21-Sep-12, 12:33:16 (#2
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 12:41:37 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	3.542	96	7536575	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.868	117	6487845	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.609	GC1	1088	[illegible]	ppmv	100

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

PROJECT NAME NOTEBOOK NO.

10412

0600 Assuming WCRR operations center - JCollerman
0605 Beginning outside rounds.
0606 Air quality personnel arrived to perform weekly stack monitori
0620 Beginning inside rounds. Pre job being conducted by SOS.
0632 Outside rounds complete.
0652 Inside rounds complete.
0654 Both rounds reviewed by SOS.
0706 Mode change complete. We are now in operations.
0743 Initiating a drum movement from 50-69 to a transportainer.
0752 Drum movement out of facility complete.
0754 Bagging on 90821.
0758 Bag on complete.
0815 Bagging off 90821, bagging on 91004.
0830 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G.
0834 Bag on complete.
0855 Bagging off 91004, bagging on 90808.
0905 Bag on complete.
0935 Bagging off 90808, bagging on 90818.
0955 Bag on complete.
1020 Initiating a drum movement from 50-69 to a transportainer.
1023 Bagging off 90818, bagging on 90807.
1043 Bag on complete.
1053 Drum movement out of facility complete.
1112 Bagging off 90807, bagging on 91008.
1124 Bag on complete.
1209 Bagging off 91008.
1225 Bag off complete.
1335 Initiating a drum movement from 50-69 to a transportainer.
1551 Drum movement out of facility complete. All inventory has been removed from the facility.
1352 Mode change complete. We are now in COLD in 50-69 and warm standby in WCRRF yard.
1355 Beginning outside rounds.
1406 Beginning inside rounds.
1423 Inside rounds complete.
1428 Operators inside 50-69 beginning to paint where magenta is coming through.
1429 Late entry - at 1422, outside rounds completed. JC
1517 Painting inside 50-69 completed.
1630 End of day. Operations secure. - JCollerman

No further entries this page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

2881 PROJECT NAME 10/4/12 NOTEBOOK NO.

0600 Assumed SOM position
0615 Attended pre job brief conducted by SOS. Discussed POD work items for day, requirement to be in Cold Mode in Bldg 50-69 @ COB, paint touchup on floor after processing complete, safety heading into long weekend.
0706 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.
0930 While reviewing SOS logbook identified page missing (torn out) ~~yesterday~~ 10/4/12. Informed OM and KS field ops manager. Neither SOS had information on when or reason for removal.
1033 Met w/ Deputy FOD and OM over work release/authorization process as part of management assessment.
1042 (Late Entry 0940) Removed Operator Aid # 50-11-07 Rev 0 Combustible Loading Quarterly Report and replaced w/ current Report under Operator Aid # 50-11-07 Rev 1.
1340 Contacted WWC to emerge painting of floor in Bldg 50-69 - for touchup of areas where magenta colored paint is starting to show thru upper grey paint.
1352 Completed Mode Change: WCRR ~~Op~~ Yard 10/4/12 / Bldg 50-69 from Operations / Operations to Warm / Cold.
1605 SOS reported all maintenance activities completed.
1615 Secured SOM position

No further entries this page

2 SIGNATURE DATE 10/4 12
READ AND UNDERSTOOD DATE

10-4-12 WCRR SOS Log Book

0600 Assuming SOS position for the day

0615 Pre Job brief, started. Needing to be in COLD MODE by the end of the day. Six Parent drums inside of 50-69 to process. Planning on processing those all from Solution Package #72. Once those six are processed we will change MODE so that the areas on the floor where the Magenta paint is starting to show can be painted. Also performing Glove Box maintenance, performing a good inspection on all the gloves, changing out the Tape on the bottom of the glove box and general housekeeping

0630 Pre-Job brief completed.

0654 Inside and outside rounds have been completed.

0706 MODE change from WARM MODE to Operations in 50-69 and in the Yard

0756 Bag on complete of first drum.

0945 Late Entry. On October 1, 2012 I noticed that a page had been torn out of the WCRR SOS log book prior to entries being made on that day. [illegible]

0815 Bagging on Second drum for the day

0815 Bagging on third drum

0935 Bagging on fourth drum

1023 Bagging on fifth drum

1112 Bagging on sixth drum

1225 Bagging off last drum for the day

1352 Mode Change Complete WARM in WCRR Yard, Cold in 50-69

1428 Operators inside 50-69 starting to paint areas where magenta is showing through.

1517 Painting inside 50-69 has been Completed.

1600 Securing SOS position for the day. [illegible]

No further entries on this page

CCP Radiography Data Sheet

5881562

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0013
Examination Date:	1/28/2013
Waste Container ID:	92166
Video/Audio Recorded Media Number:	LA-RTR2-13-0013 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 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: 92166

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard insert sleeve, ~~fiberboad~~ Fiberboard B.M. 1-30-13 B.M. 1-30-13 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):	15.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	51.1
Soils (S):	
Total WMP Weight:	81.1

CCP Radiography Data Sheet

Waste Container ID: 92166

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

Comments: N/A

RTR Operator:

Benito Maestas		1/28/2013
Print Name	Signature	Date 1·30·13

NDA 2000 Assay Report

Item Information

Item ID:	92166	Count Sequence Number:	14943
Operator:	DCLTD231\Operator		
Assay Start:	1/30/2013 3:33:54 PM		
Description 1:	2LANDA1088		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 81.1 kg	Net:	81.1 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.430 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:	14943	Batch Number:	2LANDA1088
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92166	Analysis Date:	1/30/2013

Net Weight	81100.0 g			
Pu mass	3.06E+001	+-	4.57E+000	g
TRU Alpha Activity	5.54E+000	+-	1.75E+000	Ci
TRU Activity Concentration	6.83E+004	+-	2.15E+004	nCi/g
Pu-239 Equivalent Activity	5.61E+000	+-	1.75E+000	Ci
Pu-239 FGE	2.89E+001	+-	4.29E+000	g
Decay heat	1.80E-001	+-	5.83E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.45E-002	4.61E-005	6.43E-006	1.01E-006
PU238	2.82E-003	4.87E-002	7.27E-003	3.62E-005
PU239	2.87E+001	1.81E+000	2.70E-001	1.34E-003
PU240	1.84E+000	4.22E-001	6.31E-002	3.14E-004
AM241	9.39E-001	3.26E+000	1.73E+000	2.99E-002
PU241	3.65E-002	3.79E+000	5.66E-001	2.82E-003
PU242	6.13E-003	2.43E-005	3.63E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.26E-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	1.36E-006
U238	<LLD	<LLD	0.00E+000	8.89E-006
AM243	2.21E-003	4.46E-004	6.26E-005	6.66E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-1-2013

ITR: _____ Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 14943
Batch Number: 2LANDA1088
Counter ID: HENC #2
Container ID: 92166
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
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 Chamberlin Date: 1-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92166**

BDR Number: **LA13FG8009**

Sampling Date: **2/6/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130206C\
Data File : 92166.D
Acq On : 6 Feb 2013 1:30 pm (#1); 6 Feb 2013 1:29 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 19 08:02:53 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	2786181	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2497346	179.50 ppm	0.00

Target Compounds	Qvalue

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

31

S881563

S881563

Container P /764216

File Options Reports Help

S881563

764216	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

S881563

- S881563
  - 91012 - EMPTY
  - 91011
    - 92904 - EMPTY
    - 92902 - WIPP
  - 91010
    - 92901 - EMPTY
    - 92900 - LANL
      - LASB50061
  - 91009
    - 92899 - EMPTY
    - 92898 - WIPP
  - 91008
    - 92176 - EMPTY
    - 92175 - WIPP
  - 91007
    - 92910 - EMPTY
    - 92909 - WIPP
  - 91006 - WIPP

Task History

Transfer Details

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

Working Copy
Date: 2-28-12

UET

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S881563

6.2[4] Date Processed: 2-28-12

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

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

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

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

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

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

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

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

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

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

Performed By: B. Fordham / B. Fordham 232285 2-28-12
Waste Handling Tech (print) Signature Z # Date

5.[16] *Prepared Parent Drum Weight (lb):* 425.0 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.: S881563

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 545.0 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.	91006	POC 2A	POC 2B	POC 2C
10.1[4]	Daughter Drum Filter No.	CL-1387	N/A	N/A	N/A
10.1[4]	Daughter Drum Bag Filter No.	LL-177			
10.1[4]	Daughter Drum Purchase Order No.	415090			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Nuc-Fil	Nuc-Fil	Nuc-Fil	Nuc-Fil
	Model No.	LANL BAG 3-3 PVC	LANL BAG 3-3 PVC	LANL BAG 3-3 PVC	LANL BAG 3-3 PVC
	Serial No.	LL-62	LL-195	LL-129	LL-63
	Date of Manufacture	12-11	12-11	12-11	12-11
10.2[5]	POC ID No	91007	91008	91009	91010
10.2[7][B]/10.2[6]	POC Item Description	Acid/Absorbed Salts Plastic	Acid/Absorbed Salts Plastic	Acid/Absorbed Salts Plastic	Acid/Absorbed Salts Plastic
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	N/A
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F. 235635	B.F. 235635	B.F. 235635
10.2[14]	POC Assembly Gross Weight (lb)	412.0	398.2	408.8	401.2
10.2[15]	POC Rad. Survey Results (mrem/hr)	295	235.5	270	230
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	N/A	N/A	N/A
10.3[5][A]	Free Liquid Volume/Units	20 GALLONS	20 Gallons	20 Gallons	20 Gallons
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	N/A
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments	N/A	N/A	N/A
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	75%			
10.5[4]	Description Waste Added During Processing	Plastic	Plastic	Plastic	Plastic

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: 3881563

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) N/A 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.	91006			
10.1[4]	Daughter Drum Filter No.	N/A	N/A	N/A	N/A
10.1[4]	Daughter Drum Bag Filter No.	N/A	N/A	N/A	N/A
10.1[4]	Daughter Drum Purchase Order No.				
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Nuc-Fil	Nuc-Fil		
	Model No.	LANL-Bag 3-Save	LANL-Bag 3-Save		
	Serial No.	LL-199	LL-200		
	Date of Manufacture	12-11	12-11		
10.2[5]	POC ID No	91011			
10.2[7][B]/10.2[6]	POC Item Description	ACID/ABSORBED SALTS Plastic	ACID/ABSORBED SALTS Plastic	N/A	N/A
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F. 235635 N	N/A	
10.2[14]	POC Assembly Gross Weight (lb)	413.6			
10.2[15]	POC Rad. Survey Results (mrem/hr)	270	N/A	N/A	N/A
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A		
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A	N/A		
10.3[5][A]	Free Liquid Volume/Units	20 Gal	20 Gal		
10.3[9][A]	PCB-contaminated Waste Description		N		
10.3[9][B]	PCB Item ID No.	N/A	N/A		
10.3[10]	Remaining Waste Description				
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)				
10.5[4]	Description Waste Added During Processing	Plastic	Plastic		

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S881563

Comments: LEAD SHEILDING, POLY LINER LID, 20 gallons OF ACID, PH TESTED TO A Ø, ADDED NEUTRALIZER, SALTS, PLASTIC, USED 100 lbs of absorbant to absorb acid.

11.1[1] Performed By: B. Foreman, B Foreman 255625, 2-28-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible]
SOS/SOM (print) Signature Z # Date/Time

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

85-Gallon Overpack ID Number B.F. 2-28-12 90- 91012

RECORD Drum Filter information: Wuc-Fil	
Filter ID Number: HK-1486	
Date of Manufacture: 8/10	

TORQUE WRENCH INFORMATION

Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	038373
Cal Expiration Date		Cal Expiration Date	5/30/12
N			
Tolerance		Tolerance +/-3% CW +/-6% CCW	
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
Done @ TA 54 area 6		**Bung Torque Wrench**	
		M&TE ID# N	
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

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

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

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

Drum lid ring threaded end touching jam nut: BF 3-14-12 ☑ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
B. Forsbergm	B. Forsberg	B.F.	235835	12-28-12
James Sandoval	[signature]	[signature]	116662	12.28.12

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

Drum ID#: 91006

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 415090
Lot #: 07 206 44
Date of Manufacture: 2011

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: NUCFIL
Model #: 036 DA
Serial #: CL-177
Date of Manufacture: 12/11

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: CL-1387
Date of Manufacture: 3/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9.12.12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	20-80
Tolerance:	±3% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

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

[x] Yes [ ] No

Print Name: B. Foreman Signature B. Foreman Z#: 235635

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 760
File ID #: 019005

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

6. Label Drum Assembly

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

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

Operator Print: B. Foreman Operator Sign: B. Foreman Z#: 235635 Date: 2-28-12

Verifier Print: Anthony Vigil Verifier Sign: [illegible] Z#: 187861 Date: 2-28-12

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

DRUM ID#: 91006

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 5/30/12

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

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

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 24.4153

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: B. Fordham Date: 2-28-12

Verifier Print/Sign: [illegible] Date: 2-28-12

SP 15

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: S881563 Container Type: 85-GAL Gross Weight (lbs): 425
Inner Seal #: 023825 Filter Prefix: LAS Filter Serial #: 02555
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR.
TWSR Comments: LEACHED SOLIDS MST 10 A04451
Total PE-Ci Activity: 1.58E+01 Equivalent Combustible PE-Ci: 5.91E+00 AM-241 PE-Ci: 1.28E+00
Total Fissile Gram Equivalents: 174.2 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/25/2007 Comment: Liner Not Punctured.
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ 1,000 and 10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones (Production Control (Print)) Signature: R. W. Jones 117434 (Z Number) 10.28.10 (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: Solid waste record indicates leached solids in form of nitrate salts. 9 items of salts, heaviest is 18 kg (40 lbs). net weight of 9 items is 117 Kg (257 lbs). May require RWP for >1,000 and <10,000 mrem/hr @ 30-cm. Drum is internally shielded with lead.

Performed By: Michael Garcia (WDP Engineering (Print)) Signature: Michael Garcia 099143 (Z Number) 11/11/10 (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: Robert Rios (TRU Remediation Operations (Print)) Signature: Robert Rios 099155 (Z Number) 1/24/11 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 023825

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	3OX3WS1		11.100	NITRATE SALTS	R00	7.07	52	1/13	G468	
2	3OX1WS1		11.800	NITRATE SALTS	R00	12.98	52	1/13	G468	
3	3OX9WS1		11.600	NITRATE SALTS	R00	14.96	52	1/13	G468	
4	2OX25WS1		14.900	NITRATE SALTS	R00	52.15	52	1/13	G468	
5	3LR7ES1		14.800	NITRATE SALTS	R00	42.33	52	1/13	G468	
6	3LR14ES1		18.100	NITRATE SALTS	R00	7.2	52	1/13	G468	
7	3DS11WS1A		11.800	NITRATE SALTS	R00	16.16	52	1/13	G468	
8	3DS11WS1B		8.600	NITRATE SALTS	R00	11.78	52	1/13	G468	
9	3OX15WS1		14.700	NITRATE SALTS	R00	20.14	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	184.77	117.40
Totals	184.77	117.40

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date 11-9-10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero		1236873	11-9-10

Container No. (7.[1]):	S891289	S881563	S871868
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	184.02		
1-Butanol			4.19
Methanol	47.76		
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	231.78	Ø	4.19

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	5891289	5821563	5871868
Hydrogen Reading (ppm) (7.[10]):	950.55 ppm	2133.72 ppm	342.48 ppm
Methane Reading (ppm) (7.[10]):	229.48 ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	231.78 ppm	Ø ppm	4.19 ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 12-7-10
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

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

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

11.1[7][B]/ Reviewed By: Kenny Romero [signature] 111286 12-15-10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101109c\
Data File : S881563.D
Acq On : 9 Nov 2010 1:53 pm (#1); 09-Nov-10, 13:52:29 (#2)
Operator : GR
Sample :
Misc : 55GAL DRUM FROM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 09 14:02:20 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Fri Oct 22 10:16:32 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.694	96	9192780	206.75	ppmv	-0.05
15) Chlorobenzene-d5	6.020	117	7240983	183.50	ppmv	-0.05
Target Compounds						Qvalue
1) Hydrogen	1.641	GC1	16180	2133.72	ppmv	100

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

vocgas.m Tue Nov 09 14:02:59 2010

2-28-12

0545 assuming WCRR operations center. - Kleeman
0610 Beginning inside rounds.
0620 Pre job being conducted by SOS. Beginning outside rounds.
0624 Item #66 on the rounds is CCS. Per CSE documentation, we are okay to proceed.
0655 Rounds reviewed by SOS.
0720 Mode change complete we are now in operations.
0725 Shift turnover brief with OIC Clarissa Velarde - Kleeman
0726 Assuming WCRRF operations center - cvelarde
0739 bagging on ~~3881562~~ 3881562
0813 permission granted by SOM to use introductory port.
0816 introducing nitrogen thru introductory port.
0843 Starting movement to transport vehicle. permission granted to lower vehicle access gates.
0922 Bagging off 3881562 and SPACS. bagging on 3881563
0945 Vehicle access gates have been restored, transportainer doors have been closed latched. Shipment complete.
1113 Starting movement out of 50-69
1134 Bagging off 3881563 and PACS and bagging on 3881564
1242 entering LCP-0207 high winds (>25 mph) outdoor outside operations have been suspended.
1321 exiting LCP-0207 OK to resume outside operations.
1400 on a break pause due to cutter pins missing off of drum lift.
1417 Starting movement out 50-69
1430 Starting inside rounds.
1431 late entry at 1419 entering LCO 3.0.1, 3.0.2 and 3.5. 2-28-12
1437 Item # 50 is unsat ~~per~~ SOS.
1444 item #60 is OES per CSE documentation OK to proceed.
1445 movement out of 50-69 complete.
1455 inside rounds completed.
1500 Starting outside rounds.
1521 Completed outside rounds.
1546 Inside and outside rounds are complete and signed off by SOS.
1601 Purging drum 3881564.
1626 SOS 2512 completed the density of 3881564.
1652 mode change being performed we are now in wash.
1700 end of day operations center Deanna - cvelarde

MA 2/28/12

no further entries this page

0600 Reviewed shift turnover from previous shift and assumed the SOM duties. [illegible]
0630 Attended pre-job briefing conducted by Shift Operations Supervisor.
0730 Mode change complete. WCRR YARD and 50-69 from WARM to OPERATIONS.
0753 Shift brief Juan U/I watch over to Randy Axtell.
0753 Assumed the WCRR SOM U/I Watch
1242 Entered AOP-0207 for Severe Weather - Sustained winds >25 mph. Suspended all outdoor operations at WCRR.
1321 Weather/Wind conditions subsided. Resumed outdoor operations.
1410 Notified from Ops personnel that drum lift hinge pin clips had come off of the belly band.
1419 Entered into LCO's 3.0.1, 3.0.6 and 3.5 for Inoperable Drum Lift. Inventory was already in a safe configuration. Notifications are being made to FOD and DOE by acting OM.
1440 Notified by SOS that Drum lift has been caution tagged.
1455 Per OM after talking w/ CSE General LCO 3.0.6 does not apply to this failure of the drum lift. Exiting LCO 3.0.6.
1510 Late Entry (1439) Item #50 in WCRR Inside Rounds sheet marked as Unsat due to drum lift hinge pin problem
1652 Mode change complete. Both WCRR yard and Bldg 50-69 in Warm Standby
1800 Secured SOM U/I watch.
1910 Secured the WCRR SOM position.

No further entries

2.28 12

WCKK SOS LOG BOOK

2/25/12
0603 Reviewed SOS Turnover Assuming Position [illegible]
0615 Shift brief conducted
0645 Shift brief concluded.
0655 Reviewed Inside And outside Rounds
0720 Mode Change Complete WCKK Yard And 50-69 In Operations Mode
1220 notified by Inside Personal that pin's on drum lift Popped off put every thing In A safe configuration
1310 notified CSE he notified that maintenance people need to come and replace.
GMZ-25-12
1355 ~~1320~~ notified SOM was notified to pause operations May need to go into Cold to perform the Maintenance will let the Process Going to Come And Replace
1419 Entered CC 3.0 | 3.5 For Inoperable drum Lift
1535 Reviewed Inside And outside Rounds
1550 Notified by SOM To Remest drum In Facility.
1615 Operators entering Facility To Remest Drum
1640 Remest complete will move out In The morning.
1652 Mode Change Complet WCKK Yard And 50-69 In warm
1700 End of shift securing SOS Position [illegible]

DEA
2/28/12

See further entries 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-RTR2-12-0123
Examination Date:	10/25/2012
Waste Container ID:	91006
Video/Audio Recorded Media Number:	LA-RTR2-12-0123 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 56.5 kg Tare Wt.: 33.4 kg Net Wt.: 23.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	35 %

CCP Radiography Data Sheet

Waste Container ID: 91006

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, plastic lid

OR:

IN: Absorbent

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	15.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	5.1
Soils (S):	
Total WMP Weight:	23.1

CCP Radiography Data Sheet

Waste Container ID: 91006

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

Comments:N/A

RTR Operator:

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

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

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

Item ID:            91006              Count Sequence Number:  21484
Operator:           D3PW2DK1\operator
Assay Start:        10/26/2012 12:26:59 PM
Description 1:      1LANDA1662
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6, Not Precision
Matrix Type:        Debris S5000
Container Type:     55 gallon drum
Weight:             Net:        23.1   kg        Net:    23.1 kg
Container:          Volume:    208.0   l        Full:    35.0 %
Density:                         0.320 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: 21484
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 91006

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

Net Weight	23100.0 g		
Pu mass	9.54E+000	+-	1.85E+000 g
TRU Alpha Activity	2.81E+000	+-	4.04E-001 Ci
TRU Activity Concentration	1.22E+005	+-	1.75E+004 nCi/g
Pu-239 Equivalent Activity	2.83E+000	+-	4.04E-001 Ci
Pu-239 FGE	8.82E+000	+-	1.70E+000 g
Decay heat	9.23E-002	+-	1.34E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.08E-002	7.68E-006	9.48E-007	6.39E-007
PU238	5.68E-003	9.82E-002	1.91E-002	1.64E-004
PU239	8.76E+000	5.51E-001	1.07E-001	9.22E-004
PU240	7.37E-001	1.69E-001	3.29E-002	2.83E-004
AM241	5.74E-001	1.99E+000	3.87E-001	3.34E-003
PU241	1.39E-002	1.45E+000	2.81E-001	2.42E-003
PU242	2.16E-002	8.56E-005	1.66E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.05E-007
U233	<LLD	<LLD	0.00E+000	1.39E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.86E-007
U238	<LLD	<LLD	0.00E+000	4.11E-006
AM243	2.51E-004	5.06E-005	6.28E-006	1.87E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 10-30-12

ITR: Beverly Brown Date: 10/31/12

Automated Independent Technical Review

Count Sequence Number: 21484 Batch Number: 1LANDA1662
Counter ID: MCS HENC #1
Container ID: 91006
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 10/26/2012

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
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.	
Section 4 - MGA Analysis	MGA analysis failed. FRAM results applied. FRAM results attached.
Results are marked as invalid.	

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 10-29-12

Waste Container ID: **91006**

BDR Number: **LA12FG12048**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	34.90	
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	3.66	
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\121031C\
Data File : 91006.D
Acq On : 31 Oct 2012 3:40 pm (#1); 31 Oct 2012 3:39 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 15:48:41 2012
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.057	96	5713814	204.00 ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6123502	179.25 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.927	GC1	9858m	34.90 ppmv	
17) Toluene	5.573	92	83252	3.66 ppmv	90

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

Working Copy
Date: 2-11-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91007

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

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

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

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

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

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

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

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

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

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

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

Performed By: Gerald Espinoza / [signature] 537720 / 2/11/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91007

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 448 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 4 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 445 lb

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

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91007

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92909			
10.1[4]	Daughter Drum Filter No.	KL 386		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L 6211			
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#)			N/A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%		N/A	
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91007

Comments: salts, plastic, tape, absorbent, pcc lid, pcc liners

11.1[1] Performed By: Gerardo Espinoza / 123772 / 2/11/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / 221452 / 2/12/13 0925
SOS or designee (print) Signature Z # Date/Time

UET Working Copy 2-6-13 ~~3-6-12~~
Date: ~~3-6-13~~ 2-6-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

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

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1944
Manufacture Date: 10/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Gerald Espinoza / [signature] / 2/6/13
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] / 2/6/13
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Jose Jerez / [signature] / 2-12-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 2/11/13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92910

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038307
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: Gerardo Espinoza / [signature] 123720 / 2/11/13
Waste Handling Technician (print) Signature Z # Date

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

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

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7.31.13

7.[36][D] 85-gal overpack drum gross weight (lb): 325.0 lb

Comments: N/C

8.1[1] Performed By: Gerardo Espinoza / [signature] 123720 / 2/11/13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: Jose Jerez / [signature] 221452 / 2/12/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-7-13

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

Drum ID#: 92909

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 #: 50 of 11
Lot #: 0233370
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6pvc 1.5-2 5pvc
Serial #: 26211
Date of Manufacture: 11/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 0190S
Serial #: KZ-3386
Date of Manufacture: 11/11

RECORD torque wrench information:

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

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

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Kevin Belusak Signature: Kevin Belusak Z#: 238199

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 758
File ID #: 0190605

- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Kevin Belusak Operator Sign: Kevin Belusak Z#: 238199 Date: 02/07/13
Verifier Print: Gerald Espinoza Verifier Sign: [signature] Z#: 237770 Date: 2/11/13

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

DRUM ID#: 92909

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 # : 038307

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): 2605.0

Scale ID#: 019005

✓ 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 2/11/13

Verifier Print/Sign: Eddie Rios Date 2-11-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91007 Container Type: POC Gross Weight (lbs): 412

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-316; EL-333

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

TWSR Comments: PARENT #S881563 WTS-12STD-808

Total PE-Ci Activity: 2.63E+00 Equivalent Combustible PE-Ci: 9.86E-01 AM-241 PE-Ci: 2.13E-01

Total Fissile Gram Equivalents: 290 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 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 of 1:2 volumes of kitty litter/zeolite must be mixed with the volume of nitrate salts

Performed By: Susan Ramsey 100681 Date 9/11/12
Production Control (Print) Signature Z Number Date

WDP Engineering

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 102 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 112609 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: Ensure proper ratio of kitty litter to waste is added to this waste stream in accordance with the procedure

Performed By: Jose Jerez 221452 10-4-12
TRU Remediation Operations (Print) Signature Z Number Date

OK Z# 249750 10/9/12

HS Review. Jelly fmallard ESP. Contains lead mercury + chromium 10-3-12

Noncertified TRU Waste Drum Item Information

DrumID: 023825

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	3OX3WS1		11.100	NITRATE SALTS	R00	7.07	52	1/13	G468	
2	3OX1WS1		11.800	NITRATE SALTS	R00	12.98	52	1/13	G468	
3	3OX9WS1		11.600	NITRATE SALTS	R00	14.96	52	1/13	G468	
4	2OX25WS1		14.900	NITRATE SALTS	R00	52.15	52	1/13	G468	
5	3LR7ES1		14.800	NITRATE SALTS	R00	42.33	52	1/13	G468	
6	3LR14ES1		18.100	NITRATE SALTS	R00	7.2	52	1/13	G468	
7	3DS11WS1A		11.800	NITRATE SALTS	R00	16.16	52	1/13	G468	
8	3DS11WS1B		8.600	NITRATE SALTS	R00	11.78	52	1/13	G468	
9	3OX15WS1		14.700	NITRATE SALTS	R00	20.14	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	184.77	117.40
Totals	184.77	117.40

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])	91007					
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])	E ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	E ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	E ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: None

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

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

6.1[3] Performed By: SUSAN S. RAMSEY (Waste Handling Operator (print)) [signature] (Signature) 100681 (Z #) 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 91007.D
Acq On : 28 Sep 2012 10:39 am (#1); 28 Sep 2012 10:38 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 10:47:03 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	2560483	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2215362	179.50	ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Fri Sep 28 10:47:17 2012

0910 Continued work operations center - Coleman
0912 Pre-job being conducted by SOS.
0942 Pre-job concluded.
0950 Beginning outside rounds
0955 Item #3 on the rounds is unsat. FSR in place, okay to proceed w/ the rounds.
0955 Beginning inside rounds
1008 Outside rounds completed.
1022 Item #6.1 on the rounds is OOS POD in place, okay to proceed with the rounds.
1025 Inside rounds completed.
1230 ~~A. Lopez~~ JC 2-11-13 An operator notified the SOM that the drum lift has a piece of tape on the clip to prevent someone from knocking it off. ~~CSE~~ 2-11-13 SOM + SSW questioning if a temp. mod. should be in place.
1355 SOM spoke with Engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.
1528 The following e-mail was received from the CSE regarding the tape on the clip of the drum lift:

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

The operator has been given permission to replace the filament tape with clear tape to be able to perform inspections on the clip.
1916 Both rounds reviewed by SOS.
1920 Mode change complete. We are now in operations in SOC and WCRRF yard.
1921 Permission granted to leave the vehicle access gates to load transported vehicle for a shipment to Areva
1938 Logging on drum #91087.
Continued on next page. - Coleman

2-11-13 Continued from previous page - Hileman
0948 Bag on completed. PPE check w Sat.
1053 Bagging off 91002, bagging on 90995.
1120 Initiating a drum movement from S to 2-11-13 transport to Sotco.
1129 Bag on completed. PPE check w Sat.
1145 Drum movement into the facility complete.
1330 Bagging off 90995, bagging on 90989.
1342 Permission granted to lower the vehicle access gate, to begin receipt of drums from Areas.
1348 Bag on completed. PPE check w Sat
1442 Bagging off 90989 bagging on 91003.
1508 Bag on completed. PPE check w Sat.
1540 Notified by operator that the 85 gallon ~~grapple~~ drum grabber attachment is currently broken. The operators were working at 40 off, had the transport vehicle when they noticed that the drum was not started correctly. Upon further inspection they found a weld was broken & notified on call as SOM.
1621 Bagging off 91003, bagging on 90323.
1625 Initiating a Caution tag # 2-13-0003 for the ~~water cart~~ dust graders.
1652 Bag on completed PPE check w Sat.
1653 Late entry at 1652, inside rounds began at
1700 Item # 60 LCCS, PCD in place, continuing rounds. Beginning outside rounds.
1701 Late entry at 1652, the mechanics arrived to adjust the 2nd grabber that we have for the 85 gallon drums. Continuing to off load the transport vehicle. ~~Inside rounds complete~~, sc 2-11-13
1716 The shipment from Cina has been accepted. Vehicle access gates restored. Inside rounds completed.
1725 Outside rounds completed.
1752 Bagging off 90323
1830 Both rounds received by SCS
1831 Late entry at 1815, bag off complete.
Continued on next page - Hileman

1113 Continued from previous page. Coleman
1832 made change complete. We are now in warm standby in 50-c
and WRFF land.
1840 End of day. OCC position secured. Coleman

No further entries this page.

report ai

tes

drum
3 grabber
sing
it
further
yard

3
grapple

access

2/11/13

0600 Reviewed shift turnover from previous shift and assumed the WCRR SOM position. [illegible]
0615 Attended the prior briefing conducted by SOS. Discussed bag issues discussed on 2/8/13 with team (incoming new shift).
0700 Call in with TA54 SOM. Statused WCRR work for the day. Will be emerging receipt from Area 9.
0730 Notified by [illegible] operator that the drum lift clip has a piece of tape on it. Per CSE clear packing tape was placed on clips to prevent knocking them off pins. SOM and SSW concerned and questioning if a temp mod should be in place or if drum lift needs tape removed.
0740 SOM attempting to speak with CSE and OM. No answer.
0755 Engineer Manager called back SOM. Concerns of SOM and SSW were discussed with her. She will call back with further recommendation after she speaks to CSE.
0830 Received an e-mail from CSE on permission to use clear tape on WCRR drum lift hinge pin clip.
0910 Permission granted to proceed per CSE and OM.
0915 Rate entry 0820 - SOM Phase II [illegible]
0916 Rate entry 0910 - SOM back from Phase II.
0920 Mode change complete WCRR GARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.
0938 Bagging on first drum of the day.
1040 SOM going to attend Drum Venting meeting at Pueblo Complex for WCATS.
1145 SOM returning from Drum Venting meeting
1200 Call in meeting with OM and night shift
1300 SOM attending training at NRTC.
1420 SOM back from training
1535 Notified by [illegible] that while the operators were receiving an unusually [illegible] inspection of the 55 gallon drum grabber they noticed a cracked weld. Operations immediately stopped and made notifications. [illegible] is being initiated in [illegible]
1100 [illegible] a crated drum travels to load operations at WCRR. An operator is on site to pick up.
1125 Per telecon with LANL IH the loaded drum handling grabber is rated for 500 lbs however the maximum weight to be moved will not exceed 400 lbs. Per IH ok to proceed in using drum handler/grabber.
1130 Maintenance called by to adjust 55/85 drum handler/grabber that WCRR had a risk but didn't know how to adjust. SOS confirmed that it is certified and approved for use.

[illegible]

2-11-13 WCRR SOS Log Book

0600 Assuming SOS position for the day. [illegible]

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

0640 Pre-Job brief complete.

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

0755 SOM spoke with engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.

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

0916 Signed off on both rounds, inside and outside.

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

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

1058 Bagging off first drum, bagging on second

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

1442 Bagging off drum number three, Bagging on number four

1540 Notified by operators that the 55 gallon drum grabber being used has a broken weld and is

Continued on following Page.

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

Continued on this Page.

CCP Radiography Data Sheet

5881563

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0027
Examination Date:	2/15/2013
Waste Container ID:	92909
Video/Audio Recorded Media Number:	LA-RTR2-13-0027 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 121.0 kg Tare Wt.: 33.4 kg Net Wt.: 87.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 92909

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Liner lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	52.6
Soils (S):	
Total WMP Weight:	87.6

CCP Radiography Data Sheet

Waste Container ID: 92909

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	2/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92909	Count Sequence Number:	15083
Operator:	DCLTD231\Operator		
Assay Start:	2/19/2013 3:01:23 PM		
Description 1:	2LANDA1101		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 87.6 kg	Net:	87.6 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.600 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:	15083	Batch Number:	2LANDA1101
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92909	Analysis Date:	2/19/2013

Net Weight	87600.0 g			
Pu mass	1.05E+002	+-	1.91E+001	g
TRU Alpha Activity	1.72E+001	+-	5.16E+000	Ci
TRU Activity Concentration	1.96E+005	+-	5.89E+004	nCi/g
Pu-239 Equivalent Activity	1.74E+001	+-	5.16E+000	Ci
Pu-239 FGE	9.93E+001	+-	1.79E+001	g
Decay heat	5.56E-001	+-	1.72E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.60E-001	1.14E-004	1.92E-005	2.02E-006
PU238	9.68E-003	1.67E-001	3.03E-002	3.74E-005
PU239	9.89E+001	6.22E+000	1.13E+000	1.39E-003
PU240	6.32E+000	1.45E+000	2.63E-001	3.25E-004
AM241	2.69E+000	9.35E+000	5.03E+000	6.18E-002
PU241	1.25E-001	1.30E+001	2.36E+000	2.91E-003
PU242	2.11E-002	8.37E-005	1.52E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.05E-006
U233	<LLD	<LLD	0.00E+000	9.68E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.74E-006
U238	<LLD	<LLD	0.00E+000	1.56E-005
AM243	4.75E-003	9.60E-004	1.62E-004	1.31E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 2/21/13

ITR: _____ Date: 2/25/13

Automated Independent Technical Review

Count Sequence Number: 15083 Batch Number: 2LANDA1101
Counter ID: HENC #2
Container ID: 92909
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/19/2013

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

Expert Review by: Sheri Chambers Date: 2-20-13

Waste Container ID: **92909**

BDR Number: **LA13FG12017**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	230.11	
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 : 92909.D
Acq On : 1 Mar 2013 2:07 pm (#1); 1 Mar 2013 2:06 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 14:15:51 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	11434257	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	8919701	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.923	GC1	65635m	230.11	ppmv	

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

24

Working Copy 10-4-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91008

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

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

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

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

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

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

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

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

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

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

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

Performed By: Clayton Mullins / CM 240092 10/4/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91C08

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 407.6 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 467.6 lb
6.2[6]

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

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

	NA		
EWMO-FOD (print)	Signature	Z#	Date

ATTACHMENT 1

Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91008

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92175			
10.1[4]	Daughter Drum Filter No.	AM-756		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-3535			
10.1[4]	Daughter Drum Purchase Order No.	916265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	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			N/A	
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	bag-out strips			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91008

Comments: stainless steel lid, card board, plastic, nitrate salts, kitty litter

11.1[1] Performed By: Clayton Mullins / CM / 24002 / 10/4/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Perez / [signature] / R21452 / 10-9-12 0819
SOS or designee (print) Signature Z # Date/Time

Working Copy

Date: 10-3-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HL-737
Manufacture Date: 09-11

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	06-11-13
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: Don Pacheco / Don Pacheco 244012 / 10-03-12
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: Don Pacheco / Don Pacheco 244012 / 10-03-12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Jose Jerez / Jose Jerez 221452 10-9-12
Supervisor or designee (print) Signature Z# Date

Working Copy
UET
Date: 10-4-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92176

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% rdg / ±6% rdg

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

Performed By: Clayton Mullins, CM 248092 10/4/12
Waste Handling Technician (print) Signature Z# Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 3234 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins, CM 248092 10/4/12
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: Jose Perez, [signature] 221452 10-9-12
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92175

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 416265
Lot #: 229223
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 #: BPC 15-25 SPC
Serial #: 6-3535
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 #: 0905
Serial #: RM-256
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	02064	M&TE ID #:	02151
Cal Expiration Date:	10-4-12	Cal Expiration Date:	6-7-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±3% ±6 in-lbs	Tolerance:	±3% ±6 in-lbs

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

- [x] Yes
- [ ] No

Print Name: Eddie Rios Signature: Eddie Rios ZB: 187822

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.4
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Eddie Rios Operator Sign: Eddie Rios ZB: 187822 Date: 10-2-12

Verifier Print: Clayton Mullins Verifier Sign: [illegible] ZB: 240092 Date: ~~10/4/12~~ 10/4/12 10-4-12

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

DRUM ID#: 92175

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): 10 - 80 / 60

Tolerance ±3% cw / ±6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 280.4

Scale ID#: 018065

☑ 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: Clyde Allen, CPT Date 10/4/12

Verifier Print/Sign: [illegible] Date: [illegible]

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91008 Container Type: POC Gross Weight (lbs): 398

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-428; EL-493

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

TWSR Comments: PARENT #S881503 WTS-12STD-902

Total PE-Ci Activity: 2.63E+00 Equivalent Combustible PE-Ci: 9.86E-01 AM-241 PE-Ci: 2.11E-01

Total Fissile Gram Equivalents: 29.0 Total Surface Dose Rate (mrem/hr): 1

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

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

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

Security Determination: ✓ Green Yellow

Remediation Determination: VE ☐ PID Split ☑ Repack

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

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009 Nitrate salts mixed with Waste Loc 770 from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey / 100681 / Date 9/11/12
Production Control (Print) Signature for P. Ray 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: 88lb. 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 ratios. Nitrate salts carry waste codes D007, D008 + D009 for chromium, lead + mercury (respectively). 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 / [illegible] / 112225 / 9/26/12
TRU Remediation Operations (Print) Signature Z Number Date

HS Review [illegible] CSP Contains lead, chromium, and Hg
9-26-12.

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

Noncertified TRU Waste Drum Item Information

DrumID: 023825

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	3CX3NS1		11.100	NITRATE SALTS	RGO	7.07	S2	1/13	G468
2	3CX1NS1		11.800	NITRATE SALTS	RGO	13.98	S2	1/13	G468
3	3CX4NS1		11.600	NITRATE SALTS	RGO	14.96	S2	1/13	G468
4	2CX2SNS1		14.900	NITRATE SALTS	RGO	52.15	S2	1/13	G468
5	3LR7NS1		14.000	NITRATE SALTS	RGO	42.33	S2	1/13	G468
6	3LR14NS1		10.100	NITRATE SALTS	RGO	7.3	S2	1/13	G468
7	3CS11NS1A		11.800	NITRATE SALTS	RGO	16.14	S2	1/13	G468
8	3CS11NS1B		9.600	NITRATE SALTS	RGO	11.70	S2	1/13	G468
9	3CX1SNS1		14.700	NITRATE SALTS	RGO	20.14	S2	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.6

Material Type	SNM (grams)	Items Net Wt (kg)
S2	184.77	117.40
Totals	184.77	117.40

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])	91008					
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])	349.38 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

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

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

Comments: N/A

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

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

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190249 (Z #) 9.24.12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 91008.D
Acq On : 21 Sep 2012 12:22 pm (#1); 21-Sep-12, 12:21:50 (#2
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 12:30:27 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	3.578	96	8652831	201.25 ppmv	0.04
15) Chlorobenzene-d5	5.904	117	7321478	177.00 ppmv	0.03
Target Compounds					.value
1) Hydrogen	1.607	GC1	2470	349.38 ppmv	100

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

1245 PROJECT NAME NOTEBOOK NO.

10-4-12

0600 Assuming WCRR operations center - JColeman
0605 Beginning outside rounds.
0606 Air quality personnel arrived to perform weekly stack monitorin
0620 Beginning inside rounds. Pre job being conducted by SOS.
0632 Outside rounds complete.
0652 Inside rounds complete.
0654 Both rounds reviewed by SOS.
0706 Mode change complete. We are now in operations.
0743 Initiating a drum movement from 50-69 to a transportainer.
0752 Drum movement out of facility complete.
0754 Bagging on 90821.
0758 Bag on complete.
0815 Bagging off 90821, bagging on 91004.
0830 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G.
0834 Bag on complete.
0855 Bagging off 91004, bagging on 90808.
0915 Bag on complete.
0935 Bagging off 90808, bagging on 90818.
0955 Bag on complete.
1020 Initiating a drum movement from 50-69 to a transportainer.
1023 Bagging off 90818, bagging on 90807.
1043 Bag on complete.
1053 Drum movement out of facility complete.
1112 Bagging off 90807, bagging on 91008.
1124 Bag on complete.
1209 Bagging off 91008.
1225 Bag off complete.
1335 Initiating a drum movement from 50-69 to a transportainer.
1551 Drum movement out of facility complete. All inventory has been removed from the facility.
1352 Mode change complete. We are now in COLD in 50-69 and warm standby in WCRR yard.
1355 Beginning outside rounds.
1406 Beginning inside rounds.
1423 Inside rounds complete.
1428 Operators inside 50-69 beginning to paint where magenta is coming through.
1429 Late entry at 1422, outside rounds completed. JC
1517 Painting inside 50-69 completed.
1630 End of day. Operations secure. - JColeman

No further entries this page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

(281) PROJECT NAME 10/4/12 INITIALS OF SO

0600 Assumed SOM position
0615 Attended pre job brief conducted by SOS. Discussed POD work items for day, requirement to be in Cold Mode in Bldg 50-69 @ COB, paint touchup on floor after processing complete, safety heading into long weekend.
0706 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.
0930 While reviewing SOS logbook identified page missing (torn out) ~~of~~ 10/4/12. Informed OM and ES field ops manager. Neither SOS had information on when or reason for removal.
1033 Met w/ Deputy FOD and OM over Work release/authorization process as part of management assessment.
1042 (Late Entry 0940). Removed Operator Aid # 50-11-07 Rev 0 Combustible Loading Quarterly Report and replaced w/ current Report under Operator Aid # 50-11-07 Rev 1.
1340 Contacted WWC to emerge painting of floor in Bldg 50-69 - for touch up of areas where magenta colored paint is starting to show thru upper grey paint.
1352 Completed Mode Change: WCRR ~~Op~~ 10/4/12 Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.
1605 SOS reported all maintenance activities completed.
1615 Secured SOM position

No further entries this page

SIGNATURE DATE 10/4 12
READ AND UNDERSTOOD DATE

10-4-12 WCRR SOS Log Book

0600 Assuming SOS position for the day

0615 Pre Job brief started. Needing to be in COLD MODE by the end of the day. Six Parent drums inside of 50-69 to process. Planning on processing those all from Solution Package #72. Once those six are processed we will change MODE so that the areas on the floor where the Magenta paint is starting to show can be painted. Also performing Glove Box maintenance, performing a good inspection on all the gloves, changing out the Tape on the bottom of the glove box and general housekeeping

0630 Pre-Job brief completed.

0654 Inside and outside rounds have been completed.

0706 MODE change from WARM MODE to Operations in 50-69 and in the Yard

0756 Bag on complete of first drum.

0945 Late Entry. On October 1, 2012 I noticed that a page had been torn out of the WCRR SOS log book prior to entries being made on that day. [illegible]

0815 Bagging on Second drum for the day

0835 Bagging on third drum

0935 Bagging on fourth drum

1023 Bagging on fifth drum

1112 Bagging on sixth drum

1225 Bagging off last drum for the day

1352 Mode change Complete WARM in WCRR Yard, Cold in 50-69

1428 Operators inside 50-69 starting to paint areas where magenta is showing through.

1517 Painting inside 50-69 has been Completed.

1600 Securing SOS position for the day. [illegible]

No further entries on this page

CCP Radiography Data Sheet

588563

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0058
Examination Date:	4/18/2013
Waste Container ID:	92175
Video/Audio Recorded Media Number:	LA-RTR2-13-0058 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.: 127.0 kg Tare Wt.: 33.4 kg Net Wt.: 93.6 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: 92175

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware

AM:

OM: Scrap lead

OI:

C: Fiberboard insert sleeve, fiberboard packing material

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):	15.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.0
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	61.6
Soils (S):	
Total WMP Weight:	93.6

CCP Radiography Data Sheet

Waste Container ID: 92175

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

RTR Operator:

Benito Maestas		4/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92175	Count Sequence Number:	15566
Operator:	DCLTD231\Operator		
Assay Start:	4/19/2013 11:09:36 AM		
Description 1:	2LANDA1142		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 93.6 kg	Net:	93.6 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:	15566	Batch Number:	2LANDA1142
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92175	Analysis Date:	4/19/2013

Net Weight	93600.0 g		
Pu mass	1.37E+002	+-	2.22E+001 g
TRU Alpha Activity	1.99E+001	+-	2.08E+000 Ci
TRU Activity Concentration	2.13E+005	+-	2.22E+004 nCi/g
Pu-239 Equivalent Activity	2.02E+001	+-	2.08E+000 Ci
Pu-239 FGE	1.29E+002	+-	2.09E+001 g
Decay heat	6.42E-001	+-	6.74E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.80E-001	1.29E-004	1.95E-005	2.44E-006
PU238	1.26E-002	2.17E-001	3.53E-002	3.60E-005
PU239	1.28E+002	8.07E+000	1.31E+000	1.34E-003
PU240	8.21E+000	1.89E+000	3.07E-001	3.13E-004
AM241	2.80E+000	9.73E+000	1.58E+000	1.62E-003
PU241	1.61E-001	1.68E+001	2.72E+000	2.78E-003
PU242	2.74E-002	1.09E-004	1.77E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.06E-007
U233	<LLD	<LLD	0.00E+000	1.07E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.28E-006
U238	<LLD	<LLD	0.00E+000	1.78E-005
AM243	5.67E-003	1.14E-003	1.74E-004	1.55E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 4/24/13

ITR: _____ Date: 4.30.13

Automated Independent Technical Review

Count Sequence Number: 15566
Batch Number: 2LANDA1142
Counter ID: HENC #2
Container ID: 92175
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 4/19/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	OK
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	OK
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Pu results taken from Passive Neutron data, U from Quantitative Gamma data.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test failed.	

Comments	Disposition
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed: Normalized fit value (63.90) is greater than allowed (1.15). Fit value (1061.) is greater than allowed (2.50). FWHM of 122 keV peak (853 eV) is greater than allowed (850 eV). Uncertainty in Pu240 effective (4391.%) is greater than allowed (20.0%). Pu239 weight percent is outside limits [92.5, 95.0].	Isotopic analysis failed. AK Isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and conists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 4/24/13

Waste Container ID: **92175**

BDR Number: **LA13FG2069**

Sampling Date: **6/14/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	282.38	
74-82-8	Methane	142.14	U
67-56-1	Methanol	78.65	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	16.57	
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\130614c\
Data File : 92175.D
Acq On : 14 Jun 2013 12:22 pm (#1); 14-Jun-13, 12:21:26 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 14 12:30:30 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.529	96	3853816	201.25 ppmv	-0.04
15) Chlorobenzene-d5	5.874	117	3288313	177.00 ppmv	-0.03
Target Compounds					Qvalue
1) Hydrogen	1.594	GC1	2007m	282.38 ppmv	
4) Methanol	0.831	31	30613m	78.65 ppmv	
17) Toluene	4.837	92	193120	16.57 ppmv	97

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

Working Copy
Date: 2-10-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91009

6.2[4] Date Processed: 2-10-13

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

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

4.1[6][B] Parent Waste Container RCRA Designations: D007, 008, 009

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

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

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

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

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

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

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

Performed By: [illegible] / [illegible] [illegible] / 2-10-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91009

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 414.2 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 414.2 lb

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

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 9009

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92898			
10.1[4]	Daughter Drum Filter No.	KL-390			
10.1[4]	Daughter Drum Bag Filter No.	L-6091			
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#)		X		
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub out Bags Kitty Litter			

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91009

Comments: Room trash, plastics, Kitty litter, POC lids, Salts, Card board

11.1[1] Performed By: Fredrick Schulak / [signature] 1228826 / 2-10-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: B. Fossenham / B [signature] 235051 2/13/13 1619
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: ~~3-6-13~~ 2-6-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 415529
Lot No.: 0220 6/9
Manufacture Date: 11

5.[8] Overpack filtered vent information:
Manufacturer: NUCFIL
Model No.: 013
Serial No.: JC - 1943
Manufacture Date: 10/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040094	038309
Cal. Expiration Date:	9.26.13	12/18/13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Gerald Espinoza / [signature] 1237720 2/6/13
Waste Handling Technician (print) Signature Z# Date

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

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

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] 1237720 2/6/13
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: B. Forouam / B. Forouam 235835 2/13/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 2-10-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: ~~989~~ 92899 2-10-13

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: Fredrick Archuleta / [signature] 228824 / 2-10-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 325.4 lb

Comments: No Comments

8.1[1] Performed By: Fredrick Archuleta / [signature] 228824 2-10-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: B. Fordham / B. [signature] 235635 2/13/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92898

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 501011
Lot #: 02 3370
Date of Manufacture: 1012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPVL 1.5 - 25 PVL
Serial #: C 6091
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: MICFIL
Model #: 01 7105
Serial #: KL 590
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% : 4% CW	Tolerance:	+/- 3% : 4% CW

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

[x] Yes [ ] No

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

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.8
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Kevin Belusek Operator Sign: Kevin Bel Z#: 238199 Date: 02/07/13

Verifier Print: Frederick Schulek Verifier Sign: [illegible] Z#: 228826 Date: 2-10-13

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

DRUM ID#: 92898

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 +/- 2% 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): 288.8

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 2-10-13

Verifier Print/Sign: [illegible] Date: 2-10-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91009 Container Type: POC Gross Weight (lbs): 409

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-394; EL-472

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

TWSR Comments: PARENT #S881563 WTS-12 STD-885

Total PE-Ci Activity: 2.63E+00 Equivalent Combustible PE-Ci: 9.86E-01 AM-241 PE-Ci: 2.13E-01

Total Fissile Gram Equivalents: 29.0 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 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 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: Susan S. Ramsey / Z Number: 100681 / 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: 99 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 / Signature: Valerie Rhodes / Z Number: 112609 / Date: 10/2/12

WDP Engineering (Print)

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. Use proper tools for the task

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 / Signature: Jose Perez / Z Number: 122452 / Date: 10-4-12

TRU Remediation Operations (Print)

LL Z# 249750 10/9/12

HS Review July [illegible] esp. contains lead, mercury & Chromium 10-3-12

Noncertified TRU Waste Drum Item Information

DrumID: 023825

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	3OX3WS1		11.100	NITRATE SALTS	R00	7.07	52	1/13	G468	
2	3OX1WS1		11.800	NITRATE SALTS	R00	12.98	52	1/13	G468	
3	3OX9WS1		11.600	NITRATE SALTS	R00	14.96	52	1/13	G468	
4	2OX25WS1		14.900	NITRATE SALTS	R00	52.15	52	1/13	G468	
5	3LR7ES1		14.800	NITRATE SALTS	R00	42.33	52	1/13	G468	
6	3LR14ES1		18.100	NITRATE SALTS	R00	7.2	52	1/13	G468	
7	3DS11WS1A		11.800	NITRATE SALTS	R00	16.16	52	1/13	G468	
8	3DS11WS1B		8.600	NITRATE SALTS	R00	11.78	52	1/13	G468	
9	3OX15WS1		14.700	NITRATE SALTS	R00	20.14	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	184.77	117.40
Totals	184.77	117.40

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])	91 CCG					
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])	244.20 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: None

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

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

6.1[3] Performed By: SUSAN S. RAMSEY (Waste Handling Operator (print)) [signature] (Signature) 100681 (Z #) 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 91009.D
Acq On : 28 Sep 2012 10:49 am
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 10:58:38 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	3.253	96	2530399	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2207734	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.309	GC1	60337m	244.20 ppm	

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

Vocgas.m Fri Sep 28 10:58:46 2012

1013
0700 Assuming WCRRF Operations center - Relaunch.
0014 Starting outside rounds.
0015 Pre job briefing being conducted by SOS
0037 Item #1 is OOS, PCD in place, OK to continue
0040 Item 3 is unsat, FSR in place, OK to continue.
0046 Inside rounds complete.
0109 Inside and outside rounds signed off by SOS
0722 mode change performed TA50-69 and WCRRF yard now in operations.
0730 bagging on 90988 PPE Check is sat.
0746 Starting movement out of 50-69
0756 bag on, bag off complete, PPE Check is sat
0802 movement complete out of 50-69
0841 bagging off 90988, bagging on 91009 PPE Check is sat
0855 Starting movement into 50-69
0904 bag on, bag off complete. PPE Check is sat
0951 bagging off 91009, bagging on 91010, PPE Check is sat
1001 SOS notifying operations center that the outer roll up door will not go up or down. SOS has contacted SOM.
1118 SOM contact or maintenance on door maintenance will not be able to come in till tomorrow 2-11-13
1120 bag on, bag off complete.
1200 bagging off 91010, bagging on 91011. PPE Check is sat.
1230 bag on, bag off complete.
1415 starting inside rounds PPE Check is sat
1422 Item #1 is OOS, PCD in place, OK to continue
1438 bagging off 91011 and bagging on 91017.
1500 bag on, bag off complete PPE Check is sat.
1505 starting outside rounds
1512 Starting movement out of 50-69.
1525 Item #3 is unsat, FSR in place, OK to continue.
1530 Completed outside rounds.
1531 movement out 50-69 is complete.
1542 Rounds have been signed off by SOS.
1557 Bagging off 91017, bagging on 90987 PPE Check is sat
Continued on next page

ok to proce

inplace

977

ation

2/10/13

0600 Assumed WCRR SOM position.

0615 Attended pre job brief conducted by SOS. Discussed yesterdays w and lessons learned. Talked about CSE approved placing of clear tape on drum lift pin clips. Operator #15 stated it makes it easier to inspect while drum lift is moving and will help in keeping clips in place.

0722 Completed Mode Change: WCRR ~~0 2/10/13~~ yard / Blds 50-69 from Warm / Warm to Operations / Operations

1105 Notified by SOS that Arctic door is stuck in open position - will not operate manually either direction. Operating chain pulley just free wheels on shaft.

1118 Contacted MSS - they have no one on site today to look at it but will tomorrow. SOS was able to get door to lower by manual means but is difficult to operate

1500 SSW identified that the last 2 annual drum lift inspection surveillances did not have pictures attached. Also a block on 4/14/12 surveillance was not filled in by operator. Researching location of pictures possibly attached in emails to/from CSE's, stored on share drives, etc.

1710 Operator #59 who completed surveillance on 4/14/12 on drum lift for post maint. testing recalled no issues with drum lift - specifically the rollers which had not been marked SAT. Operator made comment on surveillance form, initialed, dated and SOM reviewed entry. Verified by past SOM log entries that drum lift was operable for that day.

1745 Completed Mode Change: WCRR Yard / Blds 50-69 from Operations / Operations to Warm / Warm.

1830 Secured SOM position.

No further entries this page

2/10 13

116

240 B

WCKK SOS LOG Book

0000 Assuming SOS Position [illegible]

0015 Conducted shift brief discussed drum lift Issues need to keep an Eye on this

0035 Concluded shift Brief

0709 Reviewed Inside and outside Rounds

0722 Met Crew Complete WCRP In [illegible]

0730 bagging on 91988 PPE Check sat

0750 PPE check sat

0811 bagging off and bagging on 91009 PPE check sat

0910 operators noticed that drum on [illegible] was going to take more time than usual salts were very difficult to Break up.

0951 Bagging off and bagging on 91010 PPE check sat

1200 Bagging off and bagging on 91011 PPE check

1230 operator breaking for Lunch

1330 Operator entering from lunch

1438 bagging off and bagging on 91017 PPE Check sat

1542 Reviewed Inside And outside Rounds

1557 Bagging off and bagging on 90987 PPE check sat

1705 Bagging off last drum of day Processed 6 Drums 6 Daughter was result.

1745 Site Walk Complete WCRP In [illegible]

2013/0000 End of shift scanning SOS Position [illegible]

HG

No Further Entries on this Page

CCP Radiography Data Sheet

5 881563

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0027
Examination Date:	2/15/2013
Waste Container ID:	92898
Video/Audio Recorded Media Number:	LA-RTR2-13-0027 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 131.5 kg Tare Wt.: 33.4 kg Net Wt.: 98.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 92898

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Plastic bag, liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	63.1
Soils (S):	
Total WMP Weight:	98.1

CCP Radiography Data Sheet

Waste Container ID: 92898

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	2/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92898	Count Sequence Number:	15109
Operator:	DCLTD231\Operator		
Assay Start:	2/22/2013 1:41:53 PM		
Description 1:	2LANDA1104		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 98.1 kg	Net:	98.1 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.670 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:	15109	Batch Number:	2LANDA1104
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92898	Analysis Date:	2/22/2013

Net Weight	98100.0 g			
Pu mass	3.43E+001	+-	6.72E+000	g
TRU Alpha Activity	7.89E+000	+-	2.92E+000	Ci
TRU Activity Concentration	8.05E+004	+-	2.98E+004	nCi/g
Pu-239 Equivalent Activity	7.97E+000	+-	2.92E+000	Ci
Pu-239 FGE	3.24E+001	+-	6.31E+000	g
Decay heat	2.58E-001	+-	9.74E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.03E-001	7.32E-005	1.32E-005	1.68E-006
PU238	3.15E-003	5.45E-002	1.07E-002	3.88E-005
PU239	3.22E+001	2.02E+000	3.97E-001	1.44E-003
PU240	2.06E+000	4.73E-001	9.27E-002	3.36E-004
AM241	1.54E+000	5.34E+000	2.89E+000	7.65E-002
PU241	4.07E-002	4.23E+000	8.29E-001	3.01E-003
PU242	6.87E-003	2.72E-005	5.34E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.64E-007
U233	<LLD	<LLD	0.00E+000	8.15E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.67E-006
U238	<LLD	<LLD	0.00E+000	1.52E-005
AM243	3.70E-003	7.48E-004	1.35E-004	1.15E-005
CM243	1.02E-006	5.33E-005	2.29E-005	1.89E-005

Errors quoted at 1.000 sigma

Operator: Martin Gr Date: 2 28 13

ITR: Ami Barber Date: 3/4/13

Automated Independent Technical Review

Count Sequence Number: 15109
Counter ID: HENC #2
Container ID: 92898
Waste Matrix Code: Homo Sol. S3000
Sequence Type:

Batch Number: 2-22-13 LANDA1104
Count Type:
Assay Date: 2/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. 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 Chamberlin Date: 2-25-13

Waste Container ID: **92898**

BDR Number: **LA13FG8015**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	271.29	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130301c\
Data File : 92898.D
Acq On : 1 Mar 2013 1:49 pm (#1); 1 Mar 2013 1:48 pm (#2)
Operator : NW
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 13:57:09 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	2269521	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2044812	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.304	GC1	67032m	271.29 ppm	

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

38

Working Copy
Date: 2-10-13 cw

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91010

6.2[4] Date Processed: 2-10-13

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

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

4.1[6][B] Parent Waste Container RCRA Designations: D007, 008, 009

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

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

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

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

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

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

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

Performed By: [signature] / [signature] Z2052 / 2-10-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91010

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 405.6 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) 405.6 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
N/A			

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91010

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92900			
10.1[4]	Daughter Drum Filter No.	KL-391			
10.1[4]	Daughter Drum Bag Filter No.	L-6213			
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 Contents			
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 status Kitty Litter			

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91010

Comments: Room trash, kitty litter, plastics, P.O.C. lids, Salts, Card board,

11.1[1] Performed By: [illegible] / [illegible] 1423802 12-10-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: B. Forman / B [illegible] 23 5630 2 1313
SOS or designee (print) Signature Z # Date Time

UET
Working Copy
Date: 2-6-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415925
Lot No.: 02201649
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 3L-1812
Manufacture Date: 10-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	0400994	0383169
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	±4% cw ±10% ccw	±3% cw ±10% ccw

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

Performed By: Gerald Espinoza / [signature] 1237720 / 2/6/13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] 1237720 / 2/6/13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: B. Fordham / [signature] 233635 2/18/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-10-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92901

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: +- 3% cw +- 6% ccw

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

Performed By: Frederick Bechlenk / [signature] 228026 / 2-10-13
Waste Handling Technician (print) Signature Z# Date

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

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

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

7.[36][D] 85-gal overpack drum gross weight (lb): 324.6 lb

Comments: No Comments

8.1[1] Performed By: Frederick Bechlenk / [signature] 228026 / 2-10-13
Waste Handling Technician (print) Signature Z# Date

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

8.1[7] Reviewed By: B. Foreman / B. Foreman 233638 2/13/12
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92900

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 501011
Lot #: 0253370
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6PVC1.5-25PRC
Serial #: L-6213
Date of Manufacture: 11/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 0190S
Serial #: KL-391
Date of Manufacture: 11/11

RECORD torque wrench information:

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

Jam Nut / Bung torque wrench: 2-7-13
M&TE ID #: ~~038036~~ 038369
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 10-80
Tolerance: +/-5% cw and +/-6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Kevin Berusak Signature: Kevin Berusak Z#: 238199

5. Weigh Drum Assembly

RECORD weight information
Tare wtight (lbs) 72.2
File ID #: 019065

- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Kevin Berusak Operator Sign: Kevin Berusak Z#: 238199 Date: 02/07/13
Verifier Print: Fredricis Mcdaniels Verifier Sign: [signature] Z#: 228826 Date: 2-10-13

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

DRUM ID#: 92900

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% on +-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.) 283.0

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 2-10-13

Verifier Print/Sign: B. [illegible] Date: 2-10-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 91010 Container Type: POC Gross Weight (lbs): 401
Inner Seal #: None Filter Prefix: None Filter Serial #: EL-348; EL-380
K Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S881563 WTS-12STD-806
Total PE-Ci Activity: 2.63E+00 Equivalent Combustible PE-Ci: 9.86E-01 AM-241 PE-Ci: 2.13E-01
Total Fissile Gram Equivalents: 29.0 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 ue 10/4/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other
Security Determination: ✓ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA codes D007 & D009
Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1.2 volume of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts
Performed By: Susan Ramsey Signature: Susan G. Ramsey Z Number: 100681 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: 91 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 Signature: Valerie Rhodes Z Number: 112609 Date: 10/4/12
WDP Engineering (Print)

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands. Utilize hexarmor gloves & tools to handle waste.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure.
Performed By: Jose Jerez Signature: Jose Jerez Z Number: 122452 Date: 10-11-12
TRU Remediation Operations (Print)
Z# 249750 10/19/12

IHS Review RS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 023825

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	WT	Auth (Pg/Ln)		Comments
1	3OX3WS1		11.100	NITRATE SALTS	R00	7.07	52	1/13	G468	
2	3OX1WS1		11.800	NITRATE SALTS	R00	12.98	52	1/13	G468	
3	3OX9WS1		11.600	NITRATE SALTS	R00	14.96	52	1/13	G468	
4	2OX25WS1		14.900	NITRATE SALTS	R00	52.15	52	1/13	G468	
5	3LR7ES1		14.800	NITRATE SALTS	R00	42.33	52	1/13	G468	
6	3LR14ES1		18.100	NITRATE SALTS	R00	7.2	52	1/13	G468	
7	3DS11WS1A		11.800	NITRATE SALTS	R00	16.16	52	1/13	G468	
8	3DS11WS1B		8.600	NITRATE SALTS	R00	11.78	52	1/13	G468	
9	3OX15WS1		14.700	NITRATE SALTS	R00	20.14	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	184.77	117.40
Totals	184.77	117.40

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])	91010					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	4068.76 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 (CCP (Print)) 237975 (Z #)

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

Comments: ~~NOTE~~ Cm 10·4·12 Per attached email, container was 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: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 91010.D
Acq On : 3 Oct 2012 3:52 pm (#1); 3 Oct 2012 3:51 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 16:00:51 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	2099139	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1894929	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.768	GC1	1005319m	4068.76 ppm	

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

Vocgas.m Wed Oct 03 16:00:58 2012

2 10 13
0700 Assuming WCRRF Operations center -Relande.
0714 Starting outside rounds.
0715 Pre job briefing being conducted by SOS.
0737 Item #1 is OOS, POD in place, OK to continue
0745 Item 3 is unsat, FSR in place, OK to continue.
0746 Inside rounds complete.
0809 Inside and outside rounds signed off by SOS
0822 mode change performed TA50-69 and WCRRF yard now in operations.
0750 bagging on 90988 PPE Check is sat.
0746 Starting movement out of 50-69
0756 bag on, bag off complete, PPE Check is sat
0802 movement complete out of 50-69
0841 bagging off 90988, bagging on 91009 PPE Check is sat
0855 Starting movement into 50-69
0904 bag on, bag off complete. PPE Check is sat
1051 bagging off 91009, bagging on 91010, PPE Check is sat
1101 SOS notifying operations center that the outer roll up door will not go up or down SOS has contacted SOM.
1118 SOM contact at maintenance on duck maintenance will not be able to come in till tomorrow 2-11-13
1120 bag on, bag off complete.
1200 bagging off 91010, bagging on 91011. PPE Check is sat.
1230 bag on, bag off complete.
1415 Starting inside rounds. PPE Check is sat
1422 Item #1 is OOS, POD in place, OK to continue
1438 bagging off 91011 and bagging on 91017.
1500 bag on, bag off complete PPE Check is sat.
1505 Starting outside rounds
1512 Starting movement out of 50-69.
1525 Item #3 is unsat, FSR in place, OK to continue.
1530 Completed outside rounds.
1531 movement out 50-69 is complete.
1542 Rounds have been signed off by SOS.
1557 Bagging off 91017, bagging on 90987 PPE Check is sat
Continued on next page enclosed

ok to proce

2 inplace

977

ation

Int Daughter - 0989
92915

2-10-13 Continued from previous page - Orlando.
1614 bag on, bag off complete.
1705 starting bag 076 of 90987
1734 bag off is complete
1745 mode change performed 50-49 and WCRF yard now in warm standby.
2-10-13 1830 end of day WCRF operating center secure [illegible]
[illegible] HA

no further entries this page

2/10/13

0600 Assumed WCRR SOM position. R

0615 Attended pre job brief conducted by SOS. Discussed yesterdays w and lessons learned. Talked about CSE approved placing of clear tape on drum lift pin clips. Operator #15 stated it makes it easier to inspect while drum lift is moving and will help in keeping clips in place.

0722 Completed Mode Change: WCRR ~~Delta~~ 2/10/13 yard / Blds 50-69 from Warm / Warm to Operations / Operations

1105 Notified by SOS that Arctic door is stuck in open position - will not operate manually either direction. Operating chain pulley just freewheels on shaft.

1118 Contacted MSS - they have no one on site today to look at it but will tomorrow. SOS was able to get door to lower by manual means but is difficult to operate

1500 SSW identified that the last 2 annual drum lift inspection surveillances did not have pictures attached. Also a block on 4/16/12 surveillance was not filled in by operator. Researching location of pictures possibly attached in emails to/from CSE's, stored on share drives, etc.

1710 Operator #59 who completed surveillance on 4/14/12 on drum lift for post maint. testing recalled no issues with drum lift - specifically the rollers which had not been marked SAT. Operator made comment on surveillance form, initialed, dated and SOM reviewed entry. Verified by post SOM log entries that drum lift was operable for that day.

1745 Completed Mode Change: WCRR Yard / Blds 50-69 from Operations / Operations to Warm / Warm.

1830 Secured SOM position. R

2-20-13

No further entries this page

R

2/10 13

176

2-10-13 WKK SOS LOG Book

0000 Assuming SOS Position [illegible]

0015 Conducted shift brief discussed drum LFT Issues need to Keep an Eye on chris

0035 Concluded shift Brief.

0709 Reviewed Inside and outside Rounds

0722 [illegible] Clean + Complete WCRF Dry decontaminate

0730 bagging on 91988 PPE Check sat

0750 PPE check sat

0841 bagging off and bagging on 91009 PPE check sat

0910 operators notified that drum on w/c 6 was Going to take more time than usual salts were Very Difficult to Break up.

0951 Bagging off and bagging on 91010 PPE Check sat

1200 Bagging off and bagging on 91011 PPE check

1230 operators breaking for Lunch

1330 Operators entering from lunch

1438 bagging off and bagging on 91017 PPE Check sat

1542 Reviewed Inside And outside Rounds

1557 Bagging off and bagging on 90987 PPE Check sat

1715 Bagging off last drum of day Processed 6 Drums 6 Daughter was result.

1745 [illegible] Clean Complete WCRF In room

2-10-13 1830 End of shift securing SOS Position [illegible]

HM

No further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0136
Examination Date:	12/13/2013
Waste Container ID:	92900
Video/Audio Recorded Media Number:	LA-RTR2-13-0136 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.: 128.5 kg Tare Wt.: 33.4 kg Net Wt.: 95.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 92900

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM: Scrap lead

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Liner lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.0
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.1
Soils (S):	
Total WMP Weight:	95.1

CCP Radiography Data Sheet

Waste Container ID: 92900

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	12/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92900	Count Sequence Number:	1313
Operator:	CLREMO67292\User		
Assay Start:	2/10/2014 1:48:15 PM		
Description 1:	4LANDA0049		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, 3600 SEC FAR		
Matrix Type:	S5000		
Container Type:	55 Gal Drum		
Weight:	Net: 95.1 kg	Net:	95.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.570 kg /l		

System Configuration

Counter:	MILCC		
Efficiency Description:	208 Drum Far 1_01_13		
Segments:	Number: 2	Offset:	0
Count Type:	Item Assay		
Collimator/Geometry Setting:	Far - 2		

Errors quoted at 1.000 sigma

********** Radioassay Data Sheet **********

Engine Version: TMU Gamma 1.4

Count Sequence Number: 1313
Assay Instrument: MILCC
Analysis Method: CCP-TP-076 v 0
Item ID: 92900

Batch Number: 4LANDA0049
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 2/10/2014

Net Weight	95100.0 g		
Pu mass	2.09E+001	+-	5.30E+000 g
TRU Alpha Activity	6.10E+000	+-	1.19E+000 Ci
TRU Activity Concentration	6.41E+004	+-	1.25E+004 nCi/g
Pu-239 Equivalent Activity	6.17E+000	+-	1.19E+000 Ci
Pu-239 FGE	2.05E+001	+-	5.29E+000 g
Decay heat	2.00E-001	+-	3.94E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NA22	3.75E-011	2.35E-007	6.46E-008	1.39E-007
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.13E-007
EU154	4.26E-009	1.15E-006	5.29E-007	5.57E-007
U233	<LLD	<LLD	0.00E+000	6.41E-003
U234	1.57E-002	9.79E-005	2.57E-005	0.00E+000
U235	1.13E+000	2.43E-006	6.37E-007	1.62E-006
NP237	7.91E-002	5.58E-005	1.39E-005	3.53E-006
PU238	2.08E-003	3.55E-002	1.08E-002	6.87E-004
U238	<LLD	<LLD	0.00E+000	1.48E-005
PU239	1.96E+001	1.22E+000	3.28E-001	2.35E-002
PU240	1.25E+000	2.85E-001	8.67E-002	5.51E-003
AM241	1.33E+000	4.56E+000	1.14E+000	2.02E-002
PU241	4.00E-002	4.12E+000	1.25E+000	7.97E-002
PU242	4.18E-003	1.65E-005	5.03E-006	0.00E+000
AM243	2.52E-003	5.03E-004	1.26E-004	5.69E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-12-14

ITR: _____ Date: 2·13·14

Automated Independent Technical Review

Count Sequence Number: 1313
Counter ID: MILCC
Container ID: 92900
Waste Matrix Code: S5000
Sequence Type:

Batch Number: 4LANDA0049
Count Type:
Assay Date: 2/10/2014

Comments	Disposition
Data Combiner Analysis No Multi-Modal Results Combination TMU results available for reporting purposes.	OK
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [illegible] Date: 2/12/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92900**

BDR Number: **LA14FG12009**

Sampling Date: **1/21/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	3.39	U
74-82-8	Methane	6.56	U
67-56-1	Methanol	1.24	U
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.42	U
75-34-3	1,1-Dichloroethane	0.72	U
156-59-2	cis-1,2-Dichloroethene	0.09	U
78-93-3	Methyl ethyl ketone	0.90	U
110-82-7	Cyclohexane	0.59	U
71-43-2	Benzene	0.17	U
107-06-2	1,2-Dichloroethane	0.56	U
71-36-3	1-Butanol	0.38	U
108-10-1	Methyl isobutyl ketone	0.66	U
108-88-3	Toluene	0.93	U
108-90-7	Chlorobenzene	0.67	U
100-41-4	Ethylbenzene	0.59	U
108-38-3/106-42-3	m- and p-Xylene	0.38	U
95-47-6	o-Xylene	0.36	U
108-67-8	1,3,5-Trimethylbenzene	0.65	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\140121C\
Data File : 92900.D
Acq On : 21 Jan 2014 2:53 pm
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 21 15:02:03 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.060	96	8158825	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6532204	178.75 ppmv	0.00

Target Compounds Qvalue

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

Working Copy
Date: 2-10-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91011

6.2[4] Date Processed: 2-10-13

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

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

4.1[6][B] Parent Waste Container RCRA Designations: D007, 008, 009

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-10-13 ~~7-13-13~~ 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: Federico Rodriguez / [signature] 228826 / 2-10-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91011

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 418.4 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) 418.4 lb

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

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91011

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92902			
10.1[4]	Daughter Drum Filter No.	KL-418			
10.1[4]	Daughter Drum Bag Filter No.	L-6094			
10.1[4]	Daughter Drum Purchase Order No.	501011			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90 %			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub outbags Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91011

Comments: Room trash, plastics, Kitty litter, Salts, cardboard.
POC lids,

11.1[1] Performed By: Fredrico [illegible] / [illegible] B28826 / 2 10 13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] / [illegible] 95535 / 2/13/13 1716
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 2011

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1914
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] 2-8-13
Waste Handling Technician (print) Signature Z # Date

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

5.[15] 2 in. bung plug torque value: 32 ft-lb

Comments: n/a

8.1[1] Performed By: Brandon Chavez / [signature] 2-8-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: B. Foesham / B. Foesham 235635 / 2/13/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92904

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: +-3% CW +-6% CCW

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

Performed By: Frederick Hebbeler / [signature] 1220026 / 2-10-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 100 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: No Comments

8.1[1] Performed By: Frederick Hebbeler / [signature] 1220026 / 2-10-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: B. Forsman / B. [signature] 238655 / 2/13/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92902

1. Drum/Lid Assembly

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

RECORD drum information:
Purchase Request #: 501011
Lot #: 0233370
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:
Manufacturer: Bop
Model #: Gcore 1.5-2 Spvc
Serial #: C6044
Date of Manufacture: 6/12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 019-DS
Serial #: KL-48
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: Miguel Gonzalez Signature: [signature] Z#: 239985

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 75.6
File ID #: 019065

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

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~8" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

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

Operator Print: Brandon Chavez Operator Sign: [signature] Z#: 204742 Date: 2-3-13
Verifier Print: Fredoria [illegible] Verifier Sign: [signature] Z#: 228826 Date: 2-10-13

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

DRUM ID#: 92902

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 # : 039367

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): 293.6

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: [signature] Date: 2-10-13

Verifier Print/Sign: [signature] Date: 2-10-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91011 Container Type: POC Gross Weight (lbs): 414

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-313; EL-407

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

TWSR Comments: PARENT #8881563 WTS-12STD-860

Total PE-Ci Activity: 2.63E+00 Equivalent Combustible PE-Ci: 9.86E-01 AM-241 PE-Ci: 2.13E-01

Total Fissile Gram Equivalents: 29.0 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 NR 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: ~~Nitrate salts~~ Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volumes of kitty litter/zeolite must be mixed with 1:0 volume of nitrate salts

Performed By: Susan Ramsey Signature: Susan B. Ramsey Z Number: 100681 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: 109 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 Signature: Valerie Rhodes Z Number: 112609 Date: 10/2/12
WDP Engineering (Print)

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Heavyweight 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 Signature: Jose Jerez Z Number: 221452 Date: 10-4-12
TRU Remediation Operations (Print)

LL Z# 249750 10/9/12

IHS Review: RS 206362 10.3.12

Noncertified TRU Waste Drum Item Information

DrumID: 023825

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	3OX3WS1		11.100	NITRATE SALTS	R00	7.07	52	1/13	G468
2	3OX1WS1		11.800	NITRATE SALTS	R00	12.98	52	1/13	G468
3	3OX9WS1		11.600	NITRATE SALTS	R00	14.96	52	1/13	G468
4	2OX25WS1		14.900	NITRATE SALTS	R00	52.15	52	1/13	G468
5	3LR7ES1		14.800	NITRATE SALTS	R00	42.33	52	1/13	G468
6	3LR14ES1		18.100	NITRATE SALTS	R00	7.2	52	1/13	G468
7	3DS11WS1A		11.800	NITRATE SALTS	R00	16.16	52	1/13	G468
8	3DS11WS1B		8.600	NITRATE SALTS	R00	11.78	52	1/13	G468
9	3OX15WS1		14.700	NITRATE SALTS	R00	20.14	52	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 192.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	184.77	117.40
Totals	184.77	117.40

1 9 4 1 1 4 6 1

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])	9/011					
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])	3870.44 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)) 237975 (Z #)

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

Comments: None

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

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

6.1[3] Performed By: SUSAN S. RAMSEY (Waste Handling Operator (print)) [signature] (Signature) 100681 (Z #) 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 91011.D
Acq On : 28 Sep 2012 10:29 am (#1); 28 Sep 2012 10:28 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 10:37:14 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.253	96	2595283	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2237544	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.775	GC1	961310m	3890.64	ppm	

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

Vocgas.m Fri Sep 28 10:37:24 2012

2 1013
0700 Assuming WCRRF Operations center - Ok to land.
0714 Starting outside rounds.
0715 Pre job briefing being conducted by SOS.
0737 Item #1 is OOS, POD in place, OK to continue
0745 Item 3 is unsat, FSR in place, OK to continue.
0746 Inside rounds complete.
0809 Inside and outside rounds signed off by SOS
0822 mode change performed TA50-69 and WCRRF yard now in operations.
0750 bagging on 90988 PPE Check is sat.
0746 Starting movement out of 50-69
0756 bag on, bag off complete, PPE Check is sat
0802 movement complete out of 50-69
0841 bagging off 90988, bagging on 91009 PPE Check is sat
0855 Starting movement into 50-69
0904 bag on, bag off complete. PPE Check is sat
1051 bagging off 91009, bagging on 91010, PPE Check is sat
1101 SOS notifying operations center that the outer roll up door will not go up or down. SOS has contacted SOM.
1118 SOM contact or maintenance on duty in addition well not be able to come in till tomorrow 2-11-13
1120 bag on, bag off complete.
1200 bagging off 91010, bagging on 91011. PPE Check is sat.
1230 bag on, bag off complete.
1415 Starting inside rounds. PPE Check is sat
1422 Item #1 is OOS, POD in place, OK to continue
1438 bagging off 91011 and bagging on 91017.
1500 bag on, bag off complete PPE Check is sat.
1505 Starting outside rounds
1512 Starting movement out of 50-69.
1525 Item #3 is unsat, FSR in place, OK to continue.
1530 Completed outside rounds.
1531 movement out 50-69 is complete.
1542 Rounds have been signed off by SOS.
1557 Bagging off 91017, bagging on 90987 PPE Check is sat
Continued on next page underneath.

Int Daughter - 90989
92915

2-10-13 Continued from previous page - Orlando.
1614 bag on, bag off complete
1705 Starting bag 96 of 90987
1734 bag 96 is complete
1745 mode change performed 50-ug and WCRF
yard now in warm standby.
2-10-13 1830 end of day WCRF Operating Center secure OK
HH

No further entries this page

2/10/13

0600 Assumed WCRR SOM position. R

0615 Attended pre job brief conducted by SOS. Discussed yesterdays w and lessons learned. Talked about CSE approved placing of clear tape on drum lift pin clips. Operator #15 stated it makes it easier to inspect while drum lift is moving and will help in keeping clips in place.

0722 Completed Mode Change: WCRR ~~Delta~~ 2/10/13 yard / Bldg 50-69 from Warm / Warm to Operations / Operations

1105 Notified by SOS that Arctic door is stuck in open position - will not operate manually either direction. Operating chain pulley just freewheels on shaft.

1118 Contacted MSS - they have no one on site today to look at it but will tomorrow. SOS was able to get door to lower by manual means but is difficult to operate

1500 SSW identified that the last 2 annual drum lift inspection surveillances did not have pictures attached. Also a block on 4/16/12 surveillance was not filled in by operator. Researching location of pictures possibly attached in emails to/from CSE's, stored on share drives, etc.

1710 Operator #59 who completed surveillance on 4/14/12 on drum lift for post maint. testing recalled no issues with drum lift - specifically the rollers which had not been marked SAT. Operator made comment on surveillance form, initialed, dated and SOM reviewed entry. Verified by past SOM log entries that drum lift was operable for that day.

1745 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1830 Secured SOM position. R

JS 2-20-13

No further entries this page

R 2/10 13

116

2-10-13 WKK SOS LOG Book

0600 Assuming SOS Position Jill w/ J.

0615 Conducted shift brief discussed drum lift issues need to keep an Eye on this

0635 Concluded shift brief.

0709 Reviewed Inside and outside Rounds

0722 Met Crew + Completed WCRF In area.

0730 bagging on 9K984 PPE Check sat

0756 PPE check sat

0811 bagging off and bagging on 9K09 PPE check sat

0910 operators noticed that drum on LOG was going to take more time than usual solids were Very Difficult to Break up.

0951 Bagging off and bagging on 9K10 PPE check sat

1200 Bagging off and bagging on 9K11 PPE check

1236 operators breaking for Lunch

1330 Operators Returning from lunch

1438 bagging off and bagging on 9K17 PPE Check sat

1542 Reviewed Inside And outside Rounds

1557 Bagging off and bagging on 9K97 PPE check sat

1705 Bagging off last drum of day Processed 6 Drums 6 Daughter was result.

1715 Met Crew Completed WCRF In area

2-10-13 1730 End of shift securing SOS Position Jill off

HH

No further Entries for this Page

CCP Radiography Data Sheet

588/563

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0027
Examination Date:	2/15/2013
Waste Container ID:	92902
Video/Audio Recorded Media Number:	LA-RTR2-13-0027 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 133.0 kg Tare Wt.: 33.4 kg Net Wt.: 99.6 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: 92902

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Plastic drum lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	15.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	5.0
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	77.6
Soils (S):	
Total WMP Weight:	99.6

CCP Radiography Data Sheet

Waste Container ID: 92902

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	2/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92902	Count Sequence Number:	22095
Operator:	D3PW2DK1\operator		
Assay Start:	2/19/2013 3:23:33 PM		
Description 1:	1LANDA1716		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 99.6 kg	Net:	99.6 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.600 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

010
CS 6/9/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22095	Batch Number:	1LANDA1716
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:	92902	Analysis Date:	2/19/2013

Net Weight	99600.0 g		
Pu mass	8.23E+001	+-	1.31E+001 g
TRU Alpha Activity	2.09E+001	+-	2.49E+000 Ci
TRU Activity Concentration	2.10E+005	+-	2.49E+004 nCi/g
Pu-239 Equivalent Activity	2.11E+001	+-	2.49E+000 Ci
Pu-239 FGE	7.77E+001	+-	1.23E+001 g
Decay heat	6.82E-001	+-	8.21E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.71E-001	1.94E-004	3.28E-005	2.54E-006
PU238	7.56E-003	1.29E-001	2.05E-002	3.55E-005
PU239	7.72E+001	4.79E+000	7.61E-001	1.31E-003
PU240	4.94E+000	1.12E+000	1.78E-001	3.08E-004
AM241	4.33E+000	1.48E+001	2.36E+000	4.07E-003
PU241	9.77E-002	1.01E+001	1.60E+000	2.76E-003
PU242	1.65E-002	6.51E-005	1.03E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.75E-007
U233	<LLD	<LLD	0.00E+000	6.05E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.62E-006
U238	<LLD	<LLD	0.00E+000	1.26E-005
AM243	8.69E-003	1.74E-003	2.98E-004	7.81E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6-5-14

ITR: [signature] Date: 6-5-14

011
CS 6/9/14

Automated Independent Technical Review

Count Sequence Number: 22095 Batch Number: 1LANDA1716
Counter ID: MCS HENC #1
Container ID: 92902
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/19/2013

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

012
CJ 6/9/14

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

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

012A
(3)6/9/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92902**

BDR Number: **LA13FG12017**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	127.84	
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 : 92902.D
Acq On : 1 Mar 2013 1:55 pm (#1); 1 Mar 2013 1:54 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 14:03:46 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.063	96	11567645	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.636	117	8988287	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.923	GC1	36463m	127.84 ppmv	

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

23

S881569

S881569

Container Profile 765092

File Options Reports Help

S881569

765092	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

S881569

- S881569
  - 90992 – EMPTY
  - 90991
    - 92381 – EMPTY
    - 92380
  - 90990
    - 92922 – EMPTY
    - 92921
  - 90989
    - 92914 – EMPTY
    - 92913
  - 90988
    - 92897 – EMPTY
    - 92896
  - 90987
    - W788184 – empty
    - 92907
  - 90986
    - 93488 – EMPTY
    - 93487

Task History

Transfer Details

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

Working Copy
Date: 2-27-12

UET

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S881569

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

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

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

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

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

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

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

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

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

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

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

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

5.[16] Prepared Parent Drum Weight (lb): 431.2 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.: S881569

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 551.2 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.	90986		b	
10.1[4]	Daughter Drum Filter No.	CL-1366		A	
10.1[4]	Daughter Drum Bag Filter No.	LL-232			
10.1[4]	Daughter Drum Purchase Order No.	415090			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Nuc-Fil A	Nuc Fil B	Nuc Fil C	Nuc-Fil D
	Model No.	LANL BAG 3-3PVC	LANL BAG 3-3PVC	LANL-BAG 3-3PVC	LANL-BAG 3-3PVC
	Serial No.	LL-161	LL-184	LL-179	LL-176
	Date of Manufacture	12-11	12-11	12-11	12-11
10.2[5]	POC ID No	90987	90988	90989	90990
10.2[7][B]/10.2[6]	POC Item Description	Liquid ABSORBED SALTS PLASTIC	Liquid/ABSORBED Salts Plastic	Liquid/ABSORBED Salts Plastic	Liquid/ABSORBED SALTS Plastic
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	N/A
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F. 235635	B.F. 235635	B.F. 235635
10.2[14]	POC Assembly Gross Weight (lb)	400.6 lbs	400.2 lbs	408.6	426.0
10.2[15]	POC Rad. Survey Results (mrem/hr)	500 mr	500 mr	800 mr	500 mr
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHEILDING			
10.3[5][A]	Free Liquid Volume/Units	10 GAL.			
10.3[9][A]	PCB-contaminated Waste Description	N A		N	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS		A	
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	30%			
10.5[4]	Description Waste Added During Processing	PLASTIC			

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S881569

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) N/A 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.	POC 1E		N	
10.1[4]	Daughter Drum Filter No.	N			
10.1[4]	Daughter Drum Bag Filter No.	A		A	
10.1[4]	Daughter Drum Purchase Order No.				
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Nuc-Fil			
	Model No.	Liner Bag 3-Space			
	Serial No.	LL-130			
	Date of Manufacture	12-11			
10.2[5]	POC ID No	90991			
10.2[7][B]/10.2[6]	POC Item Description	Liquid Absorbed Salts Plastic			
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. Z55635		N	
10.2[14]	POC Assembly Gross Weight (lb)	386.6			
10.2[15]	POC Rad. Survey Results (mrem/hr)	500. mr			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING		A	
10.3[5][A]	Free Liquid Volume/Units	10 GAL			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments			
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	N/A			
10.5[4]	Description Waste Added During Processing	Plastic			

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: 5881569

Comments: LEAD SHIELDING, SALTS, LIQUID absorbed, PLASTIC POLY LID

11.1[1] Performed By: B. FORDHAM | B. F. | 235835 | 2-27-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez | [signature] | 149235 | 2/28/12
SOS/SOM (print) Signature Z # Date/Time

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

85-Gallon Overpack ID Number 90992

RECORD Drum Filter information: Nuc-Fil	
Filter ID Number: HJ-105	
Date of Manufacture: 8/09	

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	038343
Cal Expiration Date	N	Cal Expiration Date	5/30/12
Tolerance		Tolerance +/- 3% cw +/- 6% ccw	
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☒ No ☐ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
		Bung Torque Wrench	
		M&TE ID#	
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

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

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

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

Drum lid ring threaded end touching jam nut: B.F. 3/13/12 ☒ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
B. Forsham	B. Forsham	B.F.	123535	2-27-12
Steven Mondragon	Steven Mondragon	SM	104741	2-27-12

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

Drum ID#: ~~S8813~~ B.F. 2-27-12 90986

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 #: 415040
Lot #: 022.644
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: [illegible]
Model #: 036-OA
Serial #: LL-222
Date of Manufacture: 12/11

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: [illegible]
Model #: 019-05
Serial #: CC-1366
Date of Manufacture: 2/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040685	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-70
Tolerance:	+/-3% or +/-6 in-lbs	Tolerance:	+/-3% or +/-6 in-lbs

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

[x] Yes [ ] No

Print Name: Alonzo Gutierrez Signature [signature] Z#: 258782

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 96.0
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Alonzo Gutierrez Operator Sign: [signature] Z#: 258782 Date: 2-16-12

Verifier Print: B. FORDHAM Verifier Sign: B. Fordham Z#: 235635 Date: 2-27-12

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

DRUM ID#: 90986

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 #: 038372

Cal expiration date: 5-30-12

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

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

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 122.2

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: B. Fogelman B. F Date: 2-27-12

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

SP 13

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S881569 Container Type: 85-GAL Gross Weight (lbs): 447
Inner Seal #: 023806 Filter Prefix: LAS Filter Serial #: 02569
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST12 SEAL# A04457
Total PE-Ci Activity: 1.12E+01 Equivalent Combustible PE-Ci: 4.22E+00 AM-241 PE-Ci: 1.02E+00
Total Fissile Gram Equivalents: 115.9 Total Surface Dose Rate (mrem/hr): 0
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/25/2007 Comment: Liner Not Punctured,
Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones / R. W. Jones / 117434 / 10-28-10
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: Solid waste record indicates leached solids in form of nitrate salts. 10 items of salts, heaviest is 20 kg (44 lbs), net weight of 10 items is 128 kg (282 lbs). May require RWP for >1,000 and <10,000 mrem/hr @ 30-cm. Drum is shielded with lead.

Performed By: Michael Garcia / Michael Garcia / 079443 / 11/11/10
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: Robert Rios / Robert Rios / 092205 / 1-24-11
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	3OX17WS1		9.440	NITRATE SALTS	R00	10.66	52	1/13	G468	
2	3LR17ES1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468	
3	~~3LR31ES1~~ 2LR17ES1B		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468	
4	3LR31ES1		11.300	NIRTATE SALTS	R00	5.22	52	1/13	G468	
5	4LR25ES1		15.600	NITRATE SALTS	R00	19.81	52	1/13	G468	
6	4OX26WS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468	
7	5LR2ES1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468	
8	5LR2ES2		12.510	NITRATE SALTS	R00	6.34	52	1/13	G468	
9	4LR12ES1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468	
10	5OZ10WS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 11.9.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero		1236973	11-8-10

Container No. (7.[1]):	S881570	S881543	S881569
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]):	S881570	S881543	S881569
Hydrogen Reading (ppm) (7.[10]):	99.30 ppm	Ø ppm	680.60 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

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

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

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 12-7-10
Waste Handling Operator (print) Signature Z # Date

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

☑ No deficiencies

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

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

11.1[7][B]/ Reviewed By: Kenny Romero Kenny Romero 117886 / 12.15.10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101109c\
Data File : S881569.D
Acq On : 9 Nov 2010 2:39 pm (#1); 09-Nov-10, 14:38:41 (#2)
Operator : GR
Sample :
Misc : 55GAL DRUM FROM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 09 14:48:17 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Fri Oct 22 10:16:32 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.642	96	8576955	206.75	ppmv	-0.10
15) Chlorobenzene-d5	5.958	117	6892003	183.50	ppmv	-0.11
Target Compounds						Qvalue
1) Hydrogen	1.641	GC1	5161	680.60	ppmv	100

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

vocgas.m Tue Nov 09 14:48:57 2010

3

PROJECT NAME _____ NOTEBOOK NO. _____

8-27-12

0600 Assuming WCRRF Operations Center - Cruciade.
0632 Item #60 on rounds is OOS per CSE documentation OK to proceed.
0710 Inside and Outside rounds signed off by SDS.
0728 Start radio check performed.
0755 mode change performed we are now in operations.
0756 Starting to dentist.
0848 Completed dewatering of ~~3881570~~ drums, bagging on 3881569.
1005 bagging off 3881569 and POC, bagging on ~~3851570~~ 3851432.
1330 Starting movement out of SD-109.
1412 Completed movement out of SD-109.
1430 Starting outside rounds
1450 completed outside rounds.
1500 Starting inside rounds.
1536 Inside and Outside rounds signed off by SDS.
1600 bagging off 3851432 an 3 POCS
1631 mode change being performed we are now in warm.
1650 end of day WCRRF Operations center Cruciade

no further entries this page

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

259

PROJECT NAME WCPR SOS LOG BOOK NOTEBOOK NO.

2-27-12

0600 Reviewed SOS Turnover Assuming SOS Position [illegible]

0615 Shift Brief Conducted

0645 Shift Brief Concluded.

0710 Reviewed Inside And outside Rounds

0755 Mode change Complete WCPR Yard And SO-69 In Operations.

0900 had meeting About what we could do to prevent ~~[illegible]~~ breaking lead windows

0940 Meeting Concluded Talk about puting A metal Frame around window or adding a rail for protection.

0945 Late entrie on 07-25-12 myself and a operator came In to perform rounds 0900 on 07-25-12 GM
Rounds were also Reviewed on 7-25-12 1115
1130 End of shift [illegible]

1505 Contacted Representative on Wastelock 770 was Notified that Wastelock 770 Ratio with silt in liquids Is good but more he also gave us 2 other absorbents that should work he Recommended Wastelock PAM And TOTAL sorb. Sent Email he will send a couple of Trial bags.

1455 Reviewed out side Rounds.

1536 Reviewed Inside Rounds.

1634 Mode Change Complete WCPR Yard And SO-69 In warm

2-27-12 1635 End of Shift Securing SOS Position [illegible]

No further entries on this page

SIGNATURE _____ DATE _____ 20

READ AND UNDERSTOOD _____ DATE _____ 20

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

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

NO FURTHER ENTRIES THIS PAGE

SIGNATURE
READ AND UNDERSTOOD

DATE 2-27 2012
DATE 20

UET
Working Copy
Date: 4-15-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90986

6.2[4] Date Processed: 04-15-13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 07-31-13

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

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

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

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

Performed By: James Sanford [signature] 1426621 04-15-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90986
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	126.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	120.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	246.2 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90986

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93487		N/A	
10.1[4]	Daughter Drum Filter No.	KL-340			
10.1[4]	Daughter Drum Bag Filter No.	L-6240			
10.1[4]	Daughter Drum Purchase Order No.	501186			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments		N/A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	40%			
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.: 90986

Comments: Plastic, Kitty Litter, lead + Tape

11.1[1] Performed By: James Sa[illegible] / [illegible] / 116644 / 04-15-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: B. Foreman / B. [illegible] / 123563[illegible] / 4/22/13
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 4-12-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501012
Lot No.: 0233945
Manufacture Date: 12

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: EL-34
Manufacture Date: 5-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Brandon Chase / [signature] 204782 / 4-12-13
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 Chase / [signature] 204782 / 4-12-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: B. Fordham / B. Fordham / 235635 / 4/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4-15-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 93488

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 09-21-13
Range in ft-lb: 10-80
Tolerance: +/-3% cw + +/-6% cow

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

Performed By: James Schl / [signature] / 116612 / 04-15-13
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: 07-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 170.6 lb

Comments: N/C

8.1[1] Performed By: James Schl / [signature] / 116612 / 04-15-13
Waste Handling Technician (print) Signature Z # Date

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

8.1[7] Reviewed By: B. Fordham / [signature] / 235835 / 4/22/13
Supervisor or designee (print) Signature Z # Date

#2

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

Drum ID#: 93487

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 #: 501786
Lot #: 0239763
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: GCPVC1.525PVC
Serial #: L-6240
Date of Manufacture: 11-12

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 01905
Serial #: KL-370
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	098369
Cal Expiration Date:	4-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	10-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% ccw ±6% cw	Tolerance:	±3% ccw ±6% cw

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

☐ Yes ☐ No

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

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 76.2
File ID #: 019045

☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

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

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

Operator Print: Brandon Chavez Operator Sign: [signature] Z#: 204742 Date: 4-12-13

Verifier Print: James Sachs Verifier Sign: [signature] Z#: 116662 Date: 4-15-13

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

DRUM ID#: 93487

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

☑ Mount lid with filter directly over drum seam.

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

☑ Engage bolt and nut and torque per manufactures instructions.

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

☑ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 09-11-13

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

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

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 128.2

Scale ID#: 010025

☑ 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: 04-15-13

Verifier Print/Sign: Melinda Stewart [signature] Date: 04-15-13

SP72A Daughter Drum

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90986 | Container Type: 55-GAL | Gross Weight (lbs): 122
Inner Seal #: None | Filter Prefix: None | Filter Serial #: CL-1366
AK Waste Stream: LA-MIN02-V.001 | Certified RTR BDR: LA-RTR2-12-0029
TWSR Comments: PARENT #S881569
Total PE-Ci Activity: 3.60E+00 | Equivalent Combustible PE-Ci: 1.35E+00 | AM-241 PE-Ci: 2.02E+00
Total Fissile Gram Equivalents: 17.9 | Total Surface Dose Rate (mrem/hr): 15
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: CCP: AK evaluation-
RTR Pre-Screen Date: None | Comment: None
Certified RTR Comment: NA

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

Performed By: Susan Ramsey (Production Control (Print)) | Signature: Tom P. Ray | Z Number: 100681 | Date: 2/21/13

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts + Debris
Net Wt: 53#. Parent drum contained nitrate salts. RTR BDR for this daughter drum shows scrap metal + lead, rubber gloves, plastic bag, liner lid + homogeneous solids. Remaining nitrate salts require repack with admixture. No chemicals identified. Drum carries waste codes for chromium, lead, + mercury.

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Signature: Valerie Rhodes | Z Number: 112609 | Date: 3/4/13

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: VE Prance Rates at Kitty Litter

Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) | Signature: [illegible] | Z Number: 149235 | Date: 3/26/13
Job Z#249750 4/10/13 Potential Sharps - utilize hexamon gloves and tools to handle waste. Do not press such waste with hands.
HLS Reviewer. Jeffrey Amalfi CSP, May contain lead Chromium + Mercury
3-7-13

Document No: EP-DIV-AP-0107

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	NT	Auth (Pg/Ln)		Comments
1	30X17WS1		9.440	NITRATE SALTS	R00	10.64	52	1/13	G468	
2	3LR17ES1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468	
3	3LR31ES1		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468	
4	3LR31ES1		11.300	NITRATE SALTS	R00	5.22	52	1/13	G468	
5	4LR25ES1		15.600	NITRATE SALTS	R00	19.81	52	1/13	G468	
6	40X26WS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468	
7	5LR2ES1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468	
8	5LR2ES2		12.510	NITRATE SALTS	R00	6.34	52	1/13	G468	
9	4LR12ES1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468	
10	50X10WS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0029
Examination Date:	03/05/2012
Waste Container ID:	90986
Video/Audio Recorded Media Number:	LA-RTR2-12-0029 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: 55.5 kg. Tare Wt: 33.4 kg. Net Wt: 22.1 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 1 layer
Volume Utilization Percentage:	30 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 2 of 3

Waste Container ID: 90966

Section 3: Container Inventory and Comments (Detailed descriptions)
Scrap metal
Scrap lead
Rubber gloves
Plastic bag, 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 Liner(C)	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):	12.1
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	2.5
Plastics (waste materials) (XPM):	2.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	3.0
Soils (S):	
Total WMP Weight:	22.1

Attachment 2 – CCP Radiography Data Sheet (Continued)

Page 3 of 3

Waste Container ID: 90866

[illegible]	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?	☐	☑
[illegible]		
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: N/A

RTR Operator:

Print Name	Signature	Date
Philip Dillard	[signature]	3/5/12

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 3/19/13

Container No. (5.[1])	90986					
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	N/A 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:

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)) Susan S. Ramsey (Signature) 100681 (Z #) 3/25/13 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130319c\
Data File : 90986.D
Acq On : 19 Mar 2013 2:17 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH UNOBSTRUCTED -072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 14:25:04 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.253	96	2256759	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2043727	179.50 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Tue Mar 19 14:25:12 2013

1260

4-15-13

0600 Assuming WCRRF operations center - Kelaide
0614 Starting outside rounds
0615 Pre job being conducted by SOS. Started inside
0629 Item #3 is unsat, FSR in place, okay to proceed.
0645 Outside rounds complete.
0647 Item 61 is OOS, POD in place okay to proceed.
0652 Inside rounds complete
0719 Rounds have been signed off by SOS.
0743 mode change performed TA50-69 and WCRRF yard now in operations.
0900 Bagging on 3802834
0918 Bag ~~off~~ CO 4-15-13 on is complete
1043 Bagging on 90986, Bagging off 3802834 and 3 PCCS
1136 Bag on, Bag off complete.
1145 Received call from utilities they were requesting to manipulate valves they were told they could not at this time.
1211 Bagging off 90986, Bagging on 3833844.
1236 Bag on Bag off complete.
1420 Starting inside rounds 1420
1439 Item #3 is OOS, POD in place OK to proceed.
1443 Starting monument into 50-69 Completed inside rounds
1458 monument into 50-69 complete.
1527 Starting monument out of 50-69.
1550 Starting outside rounds.
1556 Item #3 is unsat, FSR in place OK to proceed.
1614 Completed outside rounds
1620 Inside and Outside rounds signed off by SOS.
1622 Bagging off 3833844
1650 Bag off is complete
1743 mode change performed TA50-69 and WCRRF yard now in warm standby.
4-15-13 1830 end of day WCRRF Operations center secure - C Vel[illegible]
CO 4-15-13
no further entries

PROJECT NAME 4/15/13 NOTEBOOK NO.

0600 Reviewed the Shift Turnover Checklist and assumed WCRR SOM position.

0615 Attended pre job brief conducted by SOS. Discussed lessons learned from weekend work - encountered high dose drum and drum w/ large amount of liquids, 2 operators will be going to Occ Med for wound evaluation for release to work in WCA.

0640 Called into daily FOD meeting - statused WCRR and DVS work throughout weekend.

0700 Called into daily TA-54 SOM meeting - todays shipment to Area G cancelled due to OSPRT personnel in training.

0743 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0900 Completed 1st bag on.

1000 LAFD on site w/ 2 personnel in charge of training along w/ 3 others from institutional training for WCRR Tour. Reason for tour is for preparation of LAFD's annual run through of all personnel for WCRR familiarization.

1145 Notified by OCO Utilities wanting to manipulate off site FSS supply valves. Contacted Kevin Graham and explained WCRR needs to be in COLD standby. Next scheduled Maintenance day is Tues 4/23/13 Utilities will reschedule.

1200 Called into daily Project Manager update for WCRR and DVS ops.

1330 Went over draft LLW procedure w/ procedure writers. Last changes to be made prior to issuing for reviews as soon as tomorrow.

1650 All bag offs are complete - final production numbers for today are 3 parents processed 3 daughters and 3 POC's produced.

1743 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1751 Sent out daily production report to distribution.

1830 Secured SOM position.

cf
4-17-13

No further entries this page

SIGNATURE DATE 4/15 20 13
READ AND UNDERSTOOD DATE 20

4/15/13 WCRR SOS LOGBOOK

0600 Assuming SOS Position [illegible]

0615 Conducted shift Brief went over Forklift operation's Shipment has been Canceled.

0648 Concluded shift brief

0719 Reviewed Inside And outside Rounds.

0743 Made change Complete WCRRF In operations.

0745 Operators Going to Install lead lined Glass on station 5 big Window. Prior to bag on.

0830 Completed Install of Lead Glass

0900 Bagging on 5802834

0918 Bags on Complete

1043 Bagging off and bagging on 90986

1136 Bag off complete

1211 Bagging off and bagging on 5833844

1236 Bag off complete

1420 Starting Inside Rounds.

1550 Started outside Rounds

1551 Late entry Completed Inside Rounds at 1443. [illegible]

1615 Reviewed Inside And outside Rounds.

1622 bagging of last drum of day

1650 bag off complete.

1743 Made Change Complete WCRRF In warm

4/15/13 1836 end of shift securing SOS Position [illegible]

[illegible]

No further entries on this Page

CCP Radiography Data Sheet

5881569

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0062
Examination Date:	4/25/2013
Waste Container ID:	93487
Video/Audio Recorded Media Number:	LA-RTR2-13-0062 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.: 58.0 kg Tare Wt.: 33.4 kg Net Wt.: 24.6 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:	30 %

CCP Radiography Data Sheet

Waste Container ID: 93487

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

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):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	12.5
Soils (S):	
Total WMP Weight:	24.6

CCP Radiography Data Sheet

Waste Container ID: 93487

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		4/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93487	Count Sequence Number:	22642
Operator:	D3PW2DK1\operator		
Assay Start:	4/26/2013 2:47:28 PM		
Description 1:	1LANDA1759		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 24.6 kg	Net:	24.6 kg
Container:	Volume: 208.0 l	Full:	30.0 %
Density:	0.390 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:	22642	Batch Number:	1LANDA1759
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:	93487	Analysis Date:	4/26/2013

Net Weight	24600.0 g		
Pu mass	1.37E+001	+-	1.95E+000 g
TRU Alpha Activity	2.10E+000	+-	5.64E-001 Ci
TRU Activity Concentration	8.54E+004	+-	2.29E+004 nCi/g
Pu-239 Equivalent Activity	2.14E+000	+-	5.64E-001 Ci
Pu-239 FGE	1.28E+001	+-	1.81E+000 g
Decay heat	6.78E-002	+-	1.88E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.71E-002	1.22E-005	1.65E-006	9.99E-007
PU238	2.14E-003	3.70E-002	5.25E-003	5.13E-005
PU239	1.27E+001	8.00E-001	1.14E-001	1.11E-003
PU240	9.49E-001	2.18E-001	3.10E-002	3.03E-004
AM241	3.01E-001	1.04E+000	5.52E-001	2.14E-002
PU241	2.10E-002	2.18E+000	3.10E-001	3.02E-003
PU242	5.35E-003	2.12E-005	3.02E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.35E-007
U233	<LLD	<LLD	0.00E+000	2.35E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.20E-007
U238	<LLD	<LLD	0.00E+000	6.13E-006
AM243	6.52E-004	1.32E-004	1.79E-005	3.02E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-1-13

ITR: _____ Date: 5-1-13

Automated Independent Technical Review

Count Sequence Number: 22642 Batch Number: 1LANDA1759
Counter ID: MCS HENC #1
Container ID: 93487
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/26/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok

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

Expert Review by: Sheri Chambers Date: 4-29-13

Waste Container ID: **93487**

BDR Number: **LA13FG2054**

Sampling Date: **5/13/2013**

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\130513C\
Data File : 93487.D
Acq On : 13 May 2013 11:10 am (#1); 13-May-13, 11:09:28 (#2)
Operator : ~~RJ~~ 5-13-13 EL
Sample : EL
Misc : 55 Gallon Drum through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 13 11:17:57 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.552	96	4236837	201.25 ppmv	-0.02
15) Chlorobenzene-d5	5.884	117	3601936	177.00 ppmv	-0.02

Target Compounds	Qvalue

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

30

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90987

6.2[4] Date Processed: 2-10-13

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

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, 008, 009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Frederick Holubek / [signature] 228824 2-10-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90987

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 406.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): .0 lb

6.2[5][B] Total Parent Drum Weight (lb) 406.2 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:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90987

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92907			
10.1[4]	Daughter Drum Filter No.	KL-380			
10.1[4]	Daughter Drum Bag Filter No.	L-60092			
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	1.0 oz			
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stuff out Bags Kitty litter Neutralizer Hex arrows			

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90987

Comments: Room trash, kitty litter, poc lids, Salts, cardboard plastics, 10 oz free liquid, Hex armors, knifes.

11.1[1] Performed By: Frederick Schulder [signature] 228026 / 2-10-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [signature] / [signature] / 2/13/2013
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 2011

5.[8] Overpack filtered vent information:

Manufacturer: NUC FIL
Model No.: 013
Serial No.: SL-1919
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 Chauer [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 Chauer [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: GMk [signature] 149235 2.13.13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-10-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92908

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: +3% cw +6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Frederick Archuleta / [signature] 228826 / 2-10-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 325.0 lb

Comments: No Comments

8.1[1] Performed By: Frederick Archuleta / [signature] 228826 2-10-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: G Martinez / [signature] 149235 2.13.13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92907

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 501011
Lot #: 0233370
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:
Manufacturer: 3OP
Model #: GCPVC 1.5-25 PVC
Serial #: L-6092
Date of Manufacture: 11/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: MC SIL
Model #: 017-105
Serial #: KC-380
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	037369
Cal Expiration Date:	4-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/- 4% ccw; +/- 6% cw	Tolerance:	+/- 2% cw; +/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Frederick Archuleta Signature: [signature] Z#: 228826 2-10-13

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) No. 2
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Frederick Archuleta Operator Sign: [signature] Z#: 228826 Date: 2-10-13
Verifier Print: Frederick Archuleta Verifier Sign: [signature] Z#: 228826 Date: 2-10-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92907

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 _____

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): 285.0

Scale ID#: 0190065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [signature] Date 2-10-13

Verifier Print/Sign: [signature] Date: 2-10-13

72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90987 Container Type: POC Gross Weight (lbs): 401

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-353; EL-96

RK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S881569 WTS-12STD-833

Total PE-Ci Activity: 1.87E+00 Equivalent Combustible PE-Ci: 7.03E-01 AM-241 PE-Ci: 1.70E-01

Total Fissile Gram Equivalents: 19.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/4/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ☒ Sealed > 4 Liters ☒ Liquid ☒ Pressurized Container ☒ Impenetrable Item ☒ Other

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum 1/2 volume of kitty litter must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey / 100681 / 9/14/12

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: 91 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes fo[redacted] and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 10/4/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands. Utilize hexarmor gloves & tools to handle waste.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: ~~Use~~ Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Perez / / 221452 / 10-11-12

TRU Remediation Operations (Print) Signature Z Number Date

OK Z# 249750 10/19/12

HS REVIEW: AB 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	30X17WS1		9.440	NITRATE SALTS	R00	10.66	52	1/13	G468	
2	3LR17RS1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468	
3	2LR31RS1		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468	
4	3LR31RS1		11.300	NITRATE SALTS	R00	5.22	52	1/13	G468	
5	4LR25RS1		15.600	NITRATE SALTS	R00	19.81	52	1/13	G468	
6	40X26WS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468	
7	5LR2RS1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468	
8	5LR2RS2		12.510	NITRATE SALTS	R00	6.34	52	1/13	G468	
9	4LR12RS1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468	
10	50Z10WS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

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])	90987					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	353.6 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: ~~None~~ Cm 10·4·12 Per attached email, container was verified as a POC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90987.D
Acq On : 3 Oct 2012 12:57 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 13:05:50 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	2338514	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2068434	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.307	GC1	87368m	353.60 ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas m Wed Oct 03 13:05:56 2012

1013
0760 Assuming WERRF Operations center -Kelsey.
0814 Starting outside rounds.
0815 Pre job briefing being conducted by SOS
0837 Item #1 is OOS, POD in place, OK to continue
0840 Item 3 is unsat, FSR in place, OK to continue.
0846 Inside rounds complete.
0909 Inside and outside rounds signed off by SOS
0922 mode change performed TA50-69 and WERRF yard now in operations.
0750 bagging on 90988 PPE Check is sat.
0846 starting movement out of 50-69
0856 bag on, bag off complete, PPE Check is sat
0902 movement complete out of 50-69
0941 bagging off 90988, bagging on 91009 PPE Check is sat
0955 Starting movement into 50-69
0904 bag on, bag off complete. PPE Check is sat
1057 bagging off 91009, bagging on 91010, PPE Check is sat
1101 SOS notifying operations center that the entry roll up door will not go up or down SOS has contacted Som.
1118 Som contact of maintenance on door maintenance will not be able to come in till tomorrow 2-11-10
1120 bag on, bag off complete.
1200 bagging off 91010, bagging on 91011. PPE Check is sat.
1230 bag on, bag off complete.
1415 starting inside rounds. PPE Check is sat
1422 Item #1 is OOS, POD in place, OK to continue
1438 bagging off 91011 and bagging on 91017.
1500 bag on, bag off complete PPE Check is sat.
1505 starting outside rounds
1512 Starting movement out of 50-69
1525 Item #3 is unsat, FSR in place OK to continue
1530 Completed outside rounds.
1531 movement out 50-69 is complete.
1542 Rounds have been signed off by SOS
1557 Bagging off 91017, bagging on 90987 PPE Check is sat
Continued on next page checklist

ok to proce

2 inplace

977

ation

2-10-13 Continued from previous page - Chelande.
1614 bag on, bag off composite
1705 starting bag 06 of 90987
1734 bag 06 is complete
1745 mode change performed 50-ug and WCREF
yard now in warm standby.
2-10-13 1830 end of day WCREF Operating Center secure
HA

no further entries this page

2/10/13

0600 Assumed WCRR SOM position. R

0615 Attended pre job brief conducted by SOS. Discussed yesterdays w and lessons learned. Talked about CSE approved placing of clear tape on drum lift pin clips. Operator #15 stated it makes it easier to inspect while drum lift is moving and will help in keeping clips in place.

0722 Completed Mode Change: WCRR ~~Yard~~ 2/10/13 yard / Blds 50-69 from Warm / Warm to Operations / Operations

1105 Notified by SOS that Arctic door is stuck in open position - will not operate manually either direction. Operating chain pulley just freewheels on shaft.

1118 Contacted MSS - they have no one on site today to look at it but will tomorrow. SOS was able to get door to lower by manual means but is difficult to operate

1500 SSW identified that the last 2 annual drum lift inspection surveillances did not have pictures attached. Also a block on 4/16/12 surveillance was not filled in by operator. Researching location of pictures possibly attached in emails to/from CSE's, stored on share drives, etc.

1210 Operator #59 who completed surveillance on 4/14/12 on drum lift for post maint. testing recalled no issues with drum lift - specifically the rollers which had not been marked SAT. Operator made comment on surveillance form, initialed, dated and SOM reviewed entry. Verified by post SOM log entries that drum lift was operable for that day.

1745 Completed Mode Change: WCRR Yard / Blds 50-69 from Operations / Operations to Warm / Warm.

1830 Secured SOM position. R

2-28-13

No further entries this page

R

2/10 13

176

2-10-13 WKK SOS LOG Book

0000 Assuming SOS Position [illegible]

0015 Conducted shift brief discussed drum LFT Issues need to Keep an Eye on chris

0035 Concluded shift Brief.

0709 Reviewed Inside and outside Rounds

0722 [illegible] Clean + Complete WCRF Dry decontaminate

0730 bagging on 91988 PPE Check sat

0750 PPE check sat

0841 bagging off and bagging on 91009 PPE check sat

0910 operators notified that drum on w/c 6 was Going to take more time than usual salts were Very Difficult to Break up.

0951 Bagging off and bagging on 91010 PPE Check sat

1200 Bagging off and bagging on 91011 PPE check

1230 operators breaking for Lunch

1330 Operators entering from lunch

1438 bagging off and bagging on 91017 PPE Check sat

1542 Reviewed Inside And outside Rounds

1557 Bagging off and bagging on 90987 PPE Check sat

1715 Bagging off last drum of day Processed 6 Drums 6 Daughter was result.

1745 [illegible] Clean Complete WCRF In room

2-10-13 1830 End of shift securing SOS Position [illegible]

HM

No further Entries on this Page

CCP Radiography Data Sheet

5881569

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0027
Examination Date:	2/15/2013
Waste Container ID:	92907
Video/Audio Recorded Media Number:	LA-RTR2-13-0027 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 92907

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R: Rubber glove

XPM: Liner lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	1.0
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.1
Soils (S):	
Total WMP Weight:	96.1

CCP Radiography Data Sheet

Waste Container ID: 92907

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	2/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92907	Count Sequence Number:	15084
Operator:	DCLTD231\Operator		
Assay Start:	2/19/2013 3:46:46 PM		
Description 1:	2LANDA1101		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 96.1 kg	Net:	96.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.580 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:	15084	Batch Number:	2LANDA1101
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92907	Analysis Date:	2/19/2013

Net Weight	96100.0 g		
Pu mass	3.30E+001	+-	6.39E+000 g
TRU Alpha Activity	1.19E+001	+-	5.03E+000 Ci
TRU Activity Concentration	1.24E+005	+-	5.24E+004 nCi/g
Pu-239 Equivalent Activity	1.20E+001	+-	5.03E+000 Ci
Pu-239 FGE	3.24E+001	+-	5.96E+000 g
Decay heat	3.92E-001	+-	1.68E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.31E-001	9.36E-005	1.55E-005	2.31E-006
PU238	5.16E-003	8.93E-002	1.73E-002	5.43E-005
PU239	3.07E+001	1.93E+000	3.73E-001	1.17E-003
PU240	2.29E+000	5.27E-001	1.02E-001	3.20E-004
AM241	2.69E+000	9.35E+000	5.02E+000	9.88E-002
PU241	5.10E-002	5.30E+000	1.03E+000	3.23E-003
PU242	1.29E-002	5.12E-005	9.91E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.16E-006
U233	<LLD	<LLD	0.00E+000	1.14E-002
U234	3.21E-002	2.03E-004	6.82E-005	0.00E+000
U235	2.30E+000	5.02E-006	1.69E-006	4.88E-006
U238	<LLD	<LLD	0.00E+000	1.97E-005
AM243	6.57E-003	1.33E-003	2.19E-004	1.33E-005
CM243	1.42E-006	7.38E-005	3.62E-005	1.35E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 2/21/13

ITR: Am Barton Date: 2/25/13

Automated Independent Technical Review

Count Sequence Number: 15084 Batch Number: 2LANDA1101
Counter ID: HENC #2
Container ID: 92907
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/19/2013

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-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 2-20-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92907**

BDR Number: **LA13FG8018**

Sampling Date: **3/14/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	627.87	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130314c\
Data File : 92907.D
Acq On : 14 Mar 2013 10:56 am (#1); 14 Mar 2013 10:55 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: Mar 14 12:16:36 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.256	96	2411846	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2135164	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.736	GC1	155135m	627.87 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.: 90988

6.2[4] Date Processed: 2-10-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D001, 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: [illegible] [signature] Z28526 2-10-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90988

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 406.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 406.2 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:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90988

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92896			
10.1[4]	Daughter Drum Filter No.	KL-384			
10.1[4]	Daughter Drum Bag Filter No.	L-6203			
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 (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub out Bags [illegible]			

N/A

ATTACHMENT I
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90988

Comments: Room trash, plastics, Salts P.OC lids, kitty litter cardboard,

11.1[1] Performed By: Fredrick [illegible] / [illegible] 2288261 2-10-13
Waste Handling Tech (print) Signature Z # Date

11 1[7] Reviewed By: B Forsyth / B. [illegible] 233355 2/13/13 1715
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2-6-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NUCON
Model No.: 013
Serial No.: 32-1950
Manufacture Date: 10/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	0383609
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinera / [signature] 2370701 2/11/13
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Gerald Espinera / [signature] 2370701 2/11/13
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: B. Foreman / [signature] 2356751 2/15/13
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.: 92897

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 Bebelek / [signature] 220826 2-10-13
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 326.4 lb

Comments: No comments

8.1[1] Performed By: Frederico Bebelek / [signature] 220826 / 2-10-13
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: B. Fordham / [signature] 235235 2/13/13
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#: 92896

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 #: 50011
Lot #: 0233110
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-1.5-25PVC
Serial #: [illegible] 6-6203
Date of Manufacture: 11-12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCSIL
Model #: 01905
Serial #: KL364
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 042694
Cal Expiration Date: 9-26-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: ±4% CW ±6% CCW

Jam Nut / Bung torque wrench:
M&TE ID #: 039361
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 10-85
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: Kevin Berlsak Signature: [signature] Z#: 228199

5. Weigh Drum Assembly

RECORD weight information
Tare wtght (lbs) 75.8
File ID #: 0190065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Kevin Berlsak Operator Sign: [signature] Z#: 228199 Date: 02/07/13
Verifier Print: [illegible] Verifier Sign: [signature] Z#: 228526 Date: 2-10-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92896

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: 2-16-13

Range/ Value (ft-lbs): 10-80

— Tolerance ± 3% cw ± 6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 279.6

Scale ID#: 019065

Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [signature] Date: 2-10-13

Verifier Print/Sign: [signature] Date: 2-10-13

72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90988 Container Type: POC Gross Weight (lbs): 400

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-324; EL-474

RK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S881569 WTS-12STD-834

Total PE-Ci Activity: 1.87E+00 Equivalent Combustible PE-Ci: 7.03E-01 AM-241 PE-Ci: 1.70E-01

Total Fissile Gram Equivalents: 19.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/4/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA code D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of the volume of kitty litter/zeolite must be mixed with 1:0 volume of nitrate salts

Performed By: Susan Ramsey Production Control (Print) Signature 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: 90lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for [redacted] and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes WDP Engineering (Print) Valerie Rhodes Signature 112609 Z Number 10/4/12 Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use proper PPE when processing 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 Perez TRU Remediation Operations (Print) Signature 224452 Z Number 10-11-12 Date

CK Z# 249750 10/19/12

IHS REVIEW: RS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	WT	Auth (Pg/Ln)		Comments
1	3OX17WS1		9.440	NITRATE SALTS	R00	10.66	52	1/13	G468	
2	3LR17RS1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468	
3	3LR31RS1 LE.1865.8		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468	
4	3LR31RS1		11.300	NITRATE SALTS	R00	5.22	52	1/13	G468	
5	4LR25RS1		15.600	NITRATE SALTS	R00	19.81	52	1/13	G468	
6	4OX26WS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468	
7	5LR2RS1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468	
8	5LR2RS2		12.510	NITRATE SALTS	R00	6.34	52	1/13	G468	
9	4LR12RS1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468	
10	5OZ10WS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

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])	90988					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments:
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: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90988.D
Acq On : 3 Oct 2012 4:57 pm (#1); 3 Oct 2012 4:56 pm (#2)
Operator : SA
Sample :
InstName : Unit B
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 17:04:32 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	2195732	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1961665	179.50 ppm	# 0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Wed Oct 03 17:04:53 2012

0713
0720 Assuming WCRRF operations center -CKelanda.
0724 Starting outside rounds.
0815 Pre job briefing being conducted by SOS
0837 Item #1 is OOS, POD in place, OK to continue
0845 Item 3 is unsat, FSR in place, OK to continue.
0846 Inside rounds complete.
0909 Inside and outside rounds signed off by SOS
0922 mode change performed TA50-69 and WCRRF yard now in operations.
0730 bagging on 90988 PPE Check is sat.
0746 Starting movement out of 50-69
0756 bag on, bag off complete, PPE Check is sat
0802 movement complete out of 50-69.
0841 bagging off 90988, bagging on 91009 PPE Check is sat
0855 Starting movement into 50-69
0904 bag on, bag off complete. PPE Check is sat
1057 bagging off 91009, bagging on 91010, PPE Check is sat
1101 SOS notifying operations center that the outer roll up door will not go up or down SOS has contacted SOM.
1118 SOM contact of maintenance on duty maintenance will not be able to come in till tomorrow 2-11-13
1120 bag on, bag off complete.
1200 bagging off 91010, bagging on 91011. PPE Check is sat.
1230 bag on, bag off complete.
1415 starting inside rounds. PPE Check is sat
1422 item #1 is OOS, POD in place, OK to continue.
1438 bagging off 91011 and bagging on 91017.
1500 bag on, bag off complete PPE Check is sat.
1505 starting outside rounds
1512 Starting movement out of 50-69.
1525 item #3 is unsat, FSR in place OK to continue.
1530 Completed outside rounds.
1531 movement out 50-69 is complete.
1542 Rounds have been signed off by SOS.
1557 Bagging off 91017, bagging on 90987 PPE Check is sat
Continued on next page attached.

ok to proce

inplace

977

ation

Int Daughter - 90989
92918

2-10-13 Continued from previous page - Orlando.
1614 bag on, bag off composite
1705 starting bag 06 of 90987
1734 bag 06 is complete
1745 mode change performed 50-49 and WCRF yard now in warm standby.
2013 1830 end of day WCRF Operating Center secure [illegible]
JJ 49

no further entries this page

2/10/13

0600 Assumed WCRR SOM position. [signature]

0615 Attended pre job brief conducted by SOS. Discussed yesterdays w and lessons learned. Talked about CSE approved placing of clear tape on drum lift pin clips. Operator #15 stated it makes it easier to inspect while drum lift is moving and will help in keeping clips in place.

0722 Completed Mode Change: WCRR ~~0~~ 2/10/13 yard / Bldg 50-69 from Warm / Warm to Operations / Operations

1105 Notified by SOS that Arctic door is stuck in open position - will not operate manually either direction. Operating chain pulley just freewheels on shaft.

1118 Contacted MSS - they have no one on site today to look at it but will tomorrow. SOS was able to get door to lower by manual means but is difficult to operate

1500 SSW identified that the last 2 annual drum lift inspection surveillances did not have pictures attached. Also a block on 4/16/12 surveillance was not filled in by operator. Researching location of pictures possibly attached in emails to/from CSE's, stored on share drives, etc.

1710 Operator #59 who completed surveillance on 4/14/12 on drum lift for post maint. testing recalled no issues with drum lift - specifically the rollers which had not been marked SAT. Operator made comment on surveillance form, initialed, dated and SOM reviewed entry. Verified by past SOM log entries that drum lift was operable for that day.

1745 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1830 Secured SOM position. [signature]

2-20-13

No further entries this page

[signature] 2/10 13

176

2-10-13 WKK SOS LOG Book

0000 Assuming SOS Position [illegible]

0015 Conducted shift brief discussed drum LFT Issues need to Keep an Eye on chris

0035 Concluded shift Brief.

0709 Reviewed Inside and outside Rounds

0722 [illegible] Clean + Complete WCRF Dry decontaminate

0730 bagging on 91988 PPE Check sat

0750 PPE check sat

0841 bagging off and bagging on 91009 PPE check sat

0910 operators notified that drum on w/c 6 was Going to take more time than usual salts were Very Difficult to Break up.

0951 Bagging off and bagging on 91010 PPE Check sat

1200 Bagging off and bagging on 91011 PPE check

1230 operators breaking for Lunch

1330 Operators entering from lunch

1438 bagging off and bagging on 91017 PPE Check sat

1542 Reviewed Inside And outside Rounds

1557 Bagging off and bagging on 90987 PPE Check sat

1715 Bagging off last drum of day Processed 6 Drums 6 Daughter was result.

1745 [illegible] Clean Complete WCRF In room

2-10-13 1830 End of shift securing SOS Position [illegible]

HM

No further Entries on this Page

CCP Radiography Data Sheet

588156 9

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0027
Examination Date:	2/15/2013
Waste Container ID:	92896
Video/Audio Recorded Media Number:	LA-RTR2-13-0027 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 127.0 kg Tare Wt.: 33.4 kg Net Wt.: 93.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 92896

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal lid, hardware
AM:	
OM:	
OI:	
C:	Fiberboard liner sleeve, fiberboard
R:	
XPM:	Liner lid, plastic bag
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	59.6
Soils (S):	
Total WMP Weight:	93.6

CCP Radiography Data Sheet

Waste Container ID: 92896

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	2/15/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            92896              Count Sequence Number:  15108
Operator:           DCLTD231\Operator
Assay Start:        2/22/2013  12:48:03 PM
Description 1:      2LANDA1104
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gal Drum
Weight:             Net:        93.6   kg        Net:    93.6 kg
Container:          Volume:    208.0   l        Full:    75.0 %
Density:                         0.600 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: 15108
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 92896

Batch Number: 2LANDA1104
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 2/22/2013

Net Weight	93600.0 g	
Pu mass	6.26E+001 +-	1.25E+001 g
TRU Alpha Activity	1.78E+001 +-	2.69E+000 Ci
TRU Activity Concentration	1.90E+005 +-	2.87E+004 nCi/g
Pu-239 Equivalent Activity	1.79E+001 +-	2.69E+000 Ci
Pu-239 FGE	5.85E+001 +-	1.16E+001 g
Decay heat	5.83E-001 +-	8.93E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.80E-001	1.29E-004	2.17E-005	3.07E-006
PU238	1.04E-002	1.79E-001	3.57E-002	6.00E-005
PU239	5.81E+001	3.66E+000	7.29E-001	1.22E-003
PU240	4.34E+000	9.97E-001	1.99E-001	3.34E-004
AM241	3.72E+000	1.29E+001	2.58E+000	4.33E-003
PU241	9.66E-002	1.00E+001	2.00E+000	3.37E-003
PU242	2.51E-002	9.95E-005	1.98E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.04E-006
U233	<LLD	<LLD	0.00E+000	1.45E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.54E-006
U238	<LLD	<LLD	0.00E+000	2.39E-005
AM243	9.14E-003	1.85E-003	3.12E-004	2.08E-005

Errors quoted at 1.000 sigma

Operator: Marlin [illegible] Date: 2.28.13

ITR: [illegible] Date: 3/4/13

Automated Independent Technical Review

Count Sequence Number: 15108 Batch Number: 2LANDA1104
Counter ID: HENC #2
Container ID: 92896
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
MCA Deadtime greater than the upper limit of 50.0%.	After EA review, no spectral distortion observed.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 from direct gamma used.

Expert Review by: Sheri Chambers Date: 2-25-13

Waste Container ID: **92896**

BDR Number: **LA13FG8016**

Sampling Date: **3/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130308c\
Data File : 92896.D
Acq On : 8 Mar 2013 1:29 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 13:40:07 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.253	96	2190732	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	1966565	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 2-11-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90989

6.2[4] Date Processed: 2-11-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☑ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D002, 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.: 00065
Cal. Due Date: 2-3-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-~~L-X~~ in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☐ NO ☑ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Eddie Rios, Eddie Rios 1187827 2-11-13
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90964

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 411.0 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) 411.0 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date
	N/A	/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90987

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92913			
10.1[4]	Daughter Drum Filter No.	KC-385	N	A	
10.1[4]	Daughter Drum Bag Filter No.	L-6188			
10.1[4]	Daughter Drum Purchase Order No.	501011			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N	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				
10.3[7][A]	Opaque/Non-penetrable Item Description:	See Comments			
10.3[9][A]	PCB-contaminated Waste Description	None			
10.3[9][B]	PCB Item ID No.	None			
10.3[10]	Remaining Waste Description	See Comments		N	A
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	See comments			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90985

Comments: Salts, plastic, came into us as a POG but leaving a regular 55 gallon, filthy litter.

11.1[1] Performed By: Eddie Rios / [signature] 182002 2-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 122452 / 2-12-13 0928
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2/1/13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92914

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: @ +-3% rdg / +-6% rdg
Tolerance: 10-80

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Eddie Rios / Eddie Rios 187822 2-1-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 326.0 ~~326~~ ~~36~~ lb
E. Rios 2-1-13

Comments: N/A

8.1[1] Performed By: Eddie Rios / Eddie Rios 187822 2-1-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez / [signature] 221452 / 2-12-13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92913

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501011
Lot #: 0233376
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: BOD
Model #: 6CPVC 1.5-75DVC
Serial #: C-6188
Date of Manufacture: 11/2012

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nuclear
Model #: 019105
Serial #: NL 388
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:	12-19-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/-4% as c 4%-5% new	Tolerance:	+/-3% as c 4%-6% new

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Kevin Bokusak Signature: Kevin Z#: 238199

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.6
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Kevin Bokusak Operator Sign: Kevin Z#: 238199 Date: 02/07/13
Verifier Print: Edward K-2s Verifier Sign: [signature] Z#: 187822 Date: 2-11-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92913

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% Rdg / +-6% Acc

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.): 283.2

Scale ID#: 099065

✓ 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: Robin Ross Robin Ross Date 2-11-13

Verifier Print/Sign: Kevin Brusseck Kevin Brusseck Date: 2-11-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

12

Production Control

Container ID: 90989 Container Type: POC Gross Weight (lbs): 409

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-368; EL-94

RCRA Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S881569 WTS-12STD-832

Total PE-Ci Activity: 1.87E+00 Equivalent Combustible PE-Ci: 7.03E-01 AM-241 PE-Ci: 1.70E-01

Total Fissile Gram Equivalents: 19.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with WasteLoc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey / 100681 / Date 9/11/12

Production Control (Print) Signature for S. Ray 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: 99 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 / 10/11/12

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 hexamor gloves & tools to handle waste.

Processing Determination: ✓ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Perez / Jose Perez / 221452 / 10-11-12

TRU Remediation Operations (Print) Signature Z Number Date

Z# 249750 10/9/12

IHS REVIEW: RB 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	30X17WS1		9.440	NITRATE SALTS	R00	10.66	52	1/13	G468	
2	3LR17ES1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468	
3	2LR22ES1		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468	
4	3LR31ES1		11.300	NITRATE SALTS	R00	5.22	52	1/13	G468	
5	4LR25ES1		19.600	NITRATE SALTS	R00	19.81	52	1/13	G468	
6	40X26WS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468	
7	5LR2ES1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468	
8	5LR2ES2		12.510	NITRATE SALTS	R00	6.34	52	1/13	G468	
9	4LR12ES1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468	
10	50X10WS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

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])	90989					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	3820.18 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: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wates (CCP (Print)) 238866 (Z #)

Comments: ~~Not~~ 10·4·12 Per attached emails, containers were 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) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90989.D
Acq On : 3 Oct 2012 4:14 pm (#1); 3 Oct 2012 4:13 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 16:21:46 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.259	96	2159443	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	1927556	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.763	GC1	943900m	3820.18	ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Wed Oct 03 16:21:54 2012

2-11-13
0615 Commence work operations center - JColeman
0615 Pre-job being conducted by SOS.
0642 Pre-job concluded.
0650 Beginning outside rounds
0658 Item #3 on the rounds is unsat. FSR in place, okay to proceed with the rounds.
0705 Beginning inside rounds
0718 Outside rounds completed.
0722 Item #6.1 on the rounds is OOS PID in place, okay to proceed with the rounds.
0725 Inside rounds completed.
0730 ~~Notified~~ JC 2-11-13 An operator notified the SOM that the drum lift has a piece of tape on the clip to prevent someone from knocking it off. ~~JCS~~ 2-11-13 SOM + SSW questioning if a temp mod should be in place.
0755 SOM spoke with Engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.
0828 The following e-mail was received from the CSE regarding the tape on the clip of the drum lift:

> WCRRF Ops.,
>
> A thin layer of tape may be used on the Drum Lift hinge pin clips to mitigate the potential for "snagging" clips with operator PPE or otherwise. The clips must remain visible under the tape for inspection purposes. This tape does not perform a structural function and does not require a design change.
>
> Shawn West
> ES-EWMO CSE, Drum Lift

The operator has been given permission to replace the filament tape with clear tape to be able to perform inspections on the clip.
0916 Both rounds reviewed by SOS.
0920 Mode change complete. We are now in operations in 50-69 and WCRRF yard.
0921 Permission granted to leave the vehicle access gates to load transport vehicle for a shipment to Area G
0938 Begging on drum #91067.
Continued on next page. JColeman

2-1-13 Continued from previous page - Coleman
0948 Bag on complete. PPE check w Sat.
1053 Bagging off 91001, bagging on 90995.
1120 Initiating a drum movement from S & 2-1-13 transport to Sotel.
1129 Bag on completed. PPE check w Sat.
1145 Drum movement into the facility complete.
1300 Bagging off 90995, bagging on 90989.
1342 Permission granted to lower the vehicle access gate, to begin receipt of drums from Area 6.
1348 Bag on completed. PPE check w Sat
1442 Bagging off 90989, bagging on 91003.
1508 Bag on completed. PPE check w Sat.
1540 Notified by operator that the 85 gallon ~~grapple~~ tray grabber attachment is currently broken. The operators were using it to off load the transport vehicle when they noticed that the drum was not secured correctly. Upon further inspection they found a weld was broken & not fast enough. SCM.
1621 Bagging off 91003, bagging on 90323.
1625 Initiating the Caution Tag # 2-13-0003 for the ~~[illegible]~~ tray grabbers.
1652 Bag on completed PPE check w Sat.
1653 Late entry at 1652, inside rounds begun.
1700 Item # 6P 1 CCS, PCD in place, continuing rounds. Beginning outside rounds.
1701 Late entry at 1652, the mechanics arrived to adjust the 2nd grabber that we have for the 85 gallon drums. Continuing to off load the transport vehicle. SC. ~~Inside rounds complete~~, SC 2-1-13
1716 The shipment from Area has been accepted. Vehicle access gates restored. Inside rounds completed.
1725 Outside rounds completed.
1752 Bagging off 90323
1830 Both rounds reviewed by SCS
1831 Late entry at 1819, bag off complete. SC
continued on next page - Coleman

Continued from previous page. Coleman
made change complete. We are now in warm standby in 50.
and WCCF board.
End of day. OCC position secured. Coleman

report ai

tes

drop
3 grabber
ing
'a
nether
yet

No further entries this page.

access

2/11/13

0600 Reviewed shift turnover from previous shift and assumed the WCRR SOM position. [illegible]
0615 Attended the prior briefing conducted by SOS. Discussed bad issues discovered on 2/8/13 with team (incoming new shift).
0700 Call in with TA54 SOM. Statused WCRR work for the day. Will be emerging receipt from Area 9.
0730 Notified by RA operator that the drum lift clip has a piece of tape on it. Per CSE clear packing tape was placed on clips to prevent knocking them off pins. SOM and SSW concerned and questioning if a temp mod should be in place or its drum lift needs tape removed.
0740 SOM attempting to speak with CSE and OM. No answer.
0755 Engineer Mandayo called back SOM. Concerns of SOM and SSW were discussed with her. She will call back with further recommendation after she speaks to CSE.
0830 Received an e-mail from CSE on permission to use clear tape on WCRR drum lift hinge pin clip.
0910 Permission granted to proceed per CSE and OM.
0915 Rate entry 0820 - SOM Phase II [illegible]
0916 Rate entry 0910 - SOM back from Phase II.
0920 Mode change complete WCRR GARD/50-129 from WARM/WARM to OPERATIONS/OPERATIONS.
0938 Bagging on first drum of the day.
1040 SOM going to attend Drum Venting meeting at Pueblo Complex for WCATS.
1145 SOM returning from Drum Venting meeting
1200 Call in meeting with OM and project manager
1300 SOM attending training at WRTC.
1420 SOM back from training
1535 Notified by [illegible] that while the operators were working on uncovering [illegible] upper inspector of the 55 gallon drum gasket they noticed a cracked weld. Operations immediately stopped and made notifications. [illegible] tag up [illegible] initiated by [illegible] per SOP.
1400 Area 9 has a certified drum handler to lend operations at WCRR. On operator 15 minutes to pick up.
1425 Per telecon with LANL IH the loaded drum handler/gantry is rated for 500 lbs however the maximum weight to be moved will not exceed 400 lbs. Per IH ok to proceed in using drum handler/gantry.
1430 Operations came by to adjust 55/55 drum handler/gantry that WCRR had on site but didn't know how to adjust. SOS confirmed that it is certified and approved for use.

Best Available Copy

2-11-13 WCRR 305 Log Book

0600 Assuming 305 position for the day. [illegible]

0615 Starting Pre-Job brief. Talked about turnover from the weekend, maintenance on the drum lift and other delays. Three drums inside from Solution Package 72 for processing. Empty drums prepped. One shipment in and one shipment out today. Safety Topic discussed on Space Heaters, and dressing in Layers. Also needing to stay Hydrated.

0640 Pre-Job brief complete.

0730 Operator performing rounds reported that the drum lift has tape on it over the clips to ~~prec~~ prevent the clips from being knocked off. 50M and 55W questioning if a temp mod should be in place.

0755 50M spoke with engineering manager regarding the tape. She will get back in touch with the 50M after she speaks with the CSE.

12t 0828 Received e-mail from CSE stating "A thin layer of tape may be used on the drum lift hinge pin clips to mitigate the potential for "snagging" clips with operator PPE or otherwise. The clips must remain visible under the tape for inspection purposes. This tape does not perform a structural function and does not require a design change." Tape used was not clear and inspection can not be performed. Tape will be changed out with clear tape so that inspection can be performed.

0916 Signed off on both rounds, inside and outside.

0920 Mode Change. WCRR Yard and 50-69 in Operations.

0938 Bagging on first drum for the day. PPE check SAT

1058 Bagging off first drum, bagging on second

1320 Bagging off second drum, Bagging on number three. PPE check is SAT

1442 Bagging off drum number three, Bagging on number four

1540 Notified by operators that the 85 gallon drum grabber being used has a broken weld and is

Continued on following Page

CCP Radiography Data Sheet

588569

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0029
Examination Date:	2/20/2013
Waste Container ID:	92913
Video/Audio Recorded Media Number:	LA-RTR2-13-0029 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:	~~S31205~~ 3110 ms 2-21-13 ms 2-21-13
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 129.0 kg Tare Wt.: 33.4 kg Net Wt.: 95.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be ~~1 layer~~ 2 layers ms 2-21-13 ms 2-21-13
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 92913

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, pipe component lid

AM:

OM:

OI:

C: Fiberboard

R:

XPM: Plastic bags, plastic liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	57.6
Soils (S):	
Total WMP Weight:	95.6

ms 2-20-2013

23 ~~24~~

ms 2-20-2013

CCP Radiography Data Sheet

Waste Container ID: 92913

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		2/20/2013
Print Name	Signature	Date

2/21/13

24

2-20-2013

NDA 2000 Assay Report

Item Information

Item ID:	92913	Count Sequence Number:	22179
Operator:	D3PW2DK1\operator		
Assay Start:	3/4/2013 10:59:18 AM		
Description 1:	1LANDA1723		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 95.6 kg	Net:	95.6 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.540 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:	22179	Batch Number:	1LANDA1723
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:	92913	Analysis Date:	3/4/2013

Net Weight	95600.0 g		
Pu mass	8.13E+001	+-	1.34E+001 g
TRU Alpha Activity	1.36E+001	+-	3.89E+000 Ci
TRU Activity Concentration	1.42E+005	+-	4.07E+004 nCi/g
Pu-239 Equivalent Activity	1.37E+001	+-	3.89E+000 Ci
Pu-239 FGE	7.60E+001	+-	1.24E+001 g
Decay heat	4.40E-001	+-	1.30E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.26E-001	9.02E-005	1.44E-005	3.61E-006
PU238	2.80E-002	4.85E-001	7.98E-002	1.17E-004
PU239	7.57E+001	4.76E+000	7.82E-001	1.15E-003
PU240	5.39E+000	1.24E+000	2.04E-001	2.99E-004
AM241	2.05E+000	7.12E+000	3.81E+000	7.97E-002
PU241	6.44E-002	6.70E+000	1.10E+000	1.61E-003
PU242	1.29E-001	5.14E-004	8.44E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.26E-007
U233	<LLD	<LLD	0.00E+000	8.68E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.31E-006
U238	<LLD	<LLD	0.00E+000	1.72E-005
AM243	4.99E-003	1.01E-003	1.63E-004	1.08E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 3.7.13

ITR: _____ Date: 3/8/13

Automated Independent Technical Review

Count Sequence Number: 22179
Batch Number: 1LANDA1723
Counter ID: MCS HENC #1
Container ID: 92913
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 3/4/2013

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.
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: Shei Chamber Date: 3-7-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92913**

BDR Number: **LA13FG8016**

Sampling Date: **3/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	259.46	
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\130308c\
Data File : 92913.D
Acq On : 8 Mar 2013 12:59 pm (#1); 8 Mar 2013 12:58 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 20 13:42:41 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	2432436	206.00 ppm	0.00
15) Chlorobenzene-d5	5.939	117	2196166	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.311	GC1	64107m	259.46 ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

24

Working Copy
Date: 2-12-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90990

6.2[4] Date Processed: 2/12/13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Gerald Esparza [signature] 1037120 | 2/12/13
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: 426 c 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) 426 c lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date
	N/A	/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 98990

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92421			
10.1[4]	Daughter Drum Filter No.	KL 358		✓	
10.1[4]	Daughter Drum Bag Filter No.	L6210		A	
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		✓	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				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description		✓	A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%		✓ A	
10.5[3]/10.6[2]	Description Waste Added During Processing	plastics, kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 9094

Comments: Jars, plastic, cardboard, pcc liners, Pu l.d.

11.1[1] Performed By: Gerald Lojinen [signature] 437726 / 2/12/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 221452, 2/12/13 / 1408
SOS or designee (print) Signature Z # Date/Time

UBI Working Copy
Date: 2-10-13CV

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220648
Manufacture Date: 2011

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1926
Manufacture Date: 10-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	0406941	638369
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] 2-10-13
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] [illegible] 2-10-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] 122142 2-16-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-12-13 n

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92922

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3/16/13
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinoza / [signature] 1237120 / 2/12/13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☐ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7.31.13

7.[36][D] 85-gal overpack drum gross weight (lb): 325.6 lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] 1237120 2/12/13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] 2214521 2-16-13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92921

1. Drum/Lid Assembly

- ☑ Remove and discard ¾" bung from lid
- ☑ Remove Lid
- ☑ Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- ☑ Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501011
Lot #: 0233413
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- ☑ Place yellow vinyl tape, with smear centered on tape, over filter
- ☑ Fill bag with air from compressed air source
- ☑ Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- ☑ Stretch bag's bungee cord
- ☑ Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6 CPVC-1.5-2 SPVC
Serial #: L-6210
Date of Manufacture: 11/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- ☑ Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- ☑ Place cardboard/plastic liner into drum liner bag/filter assembly
- ☑ Line up filter with drum seam
- ☑ Place liner/bag/filter assembly into drum
- ☑ Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- ☑ Place lid and ring onto drum
- ☑ Tighten ring sufficiently to simply hold lid in place
- ☑ Torque 2" bung plug
- ☑ Apply sealant to filter threads, screw in ¾" bung hole, and torque
- ☑ Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nuc-Fil
Model #: 019-D5
Serial #: KL-358
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.

☑ Yes ☐ No

Print Name: B. FORDHAM Signature: B. Fordham Z#: 235635

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 76.2
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

Operator Print: B. FORDHAM Operator Sign: B. Fordham Z#: 235635 Date: 2/10/12

Verifier Print: Gerald Epperson Verifier Sign: [illegible] Z#: 287720 Date: 2/12/13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 42921

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 #: 058207

Cal expiration date: 8/10/13

Range/ Value (ft-lbs): 10-80

Tolerance ± 3% [illegible]

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): 307.2

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 2/12/13

Verifier Print/Sign: [illegible] Date: 2/12/13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90990 Container Type: POC Gross Weight (lbs): 426

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-319; EL-475

K Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S881569 WTS-12STD-835

Total PE-Ci Activity: 1.87E+00 Equivalent Combustible PE-Ci: 7.03E-01 AM-241 PE-Ci: 1.70E-01

Total Fissile Gram Equivalents: 19.3 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009 LR 10/4/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007, D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1.2 volumes of bentonite/zeolite mixture, had 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: 116 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 112609 10/4/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands. Utilize hammer 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 Jorez 122452 10-11-12

TRU Remediation Operations (Print) Signature Z Number Date

Z# 249750 10/19/12 10/19/12

IHS REVIEW: RS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	30X17WS1		9.440	NITRATE SALTS	R00	10.66	52	1/13	G468	
2	3LR17RS1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468	
3	3LR31RS1		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468	
4	3LR31RS1		11.300	NITRATE SALTS	R00	5.22	52	1/13	G468	
5	4LR25RS1		15.600	NITRATE SALTS	R00	19.81	52	1/13	G468	
6	40X26WS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468	
7	5LR2RS1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468	
8	5LR2RS2		12.510	NITRATE SALTS	R00	6.34	52	1/13	G468	
9	4LR12RS1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468	
10	50X10WS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

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])	90990					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	187.59 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: ~~NOTE~~ CM 10.4.12 Per attached email, container was verified as a POC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90990.D
Acq On : 3 Oct 2012 3:41 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER (Sig #1), (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 15:49:20 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.259	96	2140308	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1922740	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.309	GC1	46349m	187.59 ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Wed Oct 03 15:49:28 2012

2-12-13

0550 Assuming WCRF Operations Leader - Coleman
0615 Beginning inside and outside rounds.
0620 Pre-job briefing being conducted by SDS.
0621 Item #61 on the rounds is OOS. POD in place, continuing rounds
0622 Item #3 is unsat, FSR in place for repair, continuing rounds.
0627 Outside rounds complete.
0650 Pre job concluded.
0707 Both rounds ex 2-11-13 reviewed by SDS.
0715 mode change complete. We are now in operations in 50-69 and WCRF yard.
0753 Bagging on 90996.
0801 Bag on complete. PPE check is Sat.
0835 Permission granted to lower vehicle access gates to load transport vehicle for a shipment to Area G. Initiating a drum movement from transportainer to the transport vehicle.
0855 Bagging off 900 to 2-12-13 90996, bagging on 90990.
0920 Bag on complete. PPE check is Sat.
0954 Initiated a drum movement from transportainer to 50-69. Vehicle access gates restored.
1030 movement into 50-69 complete.
1114 Bagging off 90990, bagging on S818290.
1143 Operator 59 notified the Ops. center of a WCG High Pressure alarm going off. He states that they were bagging on the parent drum and when they reached inside to pull the old bag into the glovebox, the new bag tore right down the seam ~~approximately~~ approximately 12-18 inches long. Entering Procedure #EP-WCRF-RM-ARP-0401. The current reading on the Allen Bradley for PDI-034 is 0.53 and the readings for PC-501 is -0.50 and PC-502 is -0.53. Everything is in a safe configuration and all non-essential personnel are exiting 50-69. The operator has placed a piece of tape on the torn seam. No contamination has been found and no CAMS are alarming.
Continued on next page. - Coleman

0600 Assumed the WCRR SCM position [signature]
0640 Call in with EOD
0700 Call in with T454 SCM to status WCRR.
0715 Mode change complete. WCRR YAR0150-109 from WARM/WARM to OPERATIONS/OPERATIONS
0830 Notified by RP-1 that an individual from RP-1 [illegible] 1/2/13 P.T. entered the transportation without requesting RP-1 permission. The RP-1 individuals didn't enter the area until RP-1 was notified. RP-1 Supervisor is investigating further to see if an RPO will be initiated.
1143 Notified by CCO of a WCG High Pressure Alarm inside 50-109. The PIC crew stated that they were hooking up bagging to the parent drum when an individual reached for the inner bag/stub to pull it into the WCG and the outer bag tore. The tear is approximately 10-12 inches in length. No CAM alarms and no contamination. CCO entering EP-WCRR-RM-ARP-0001. The current reading on PC501 is -50 and PC502 is -0.53 and the reading for PDT034 is 0.53 and the reading for PC501 is -0.50. Everything is in a safe configuration and all non essential personnel are exiting 50-109. The operator placed a piece of tape on the tear. No contamination has been found and no CAMs are alarming.
1145 DM notified
1155 All personnel are working 50-109 with respirators on per RCTS.
1157 Operator #39 is unable to clear PCM (L) hand contamination. RP-1 Supervisor discovers its radon because no contamination was detected on PPE.
1229 RP1 Supervisor states that no contamination has been found and all surveys come back NDA. He also notified that operator #39 is back inside 50-109 and his contamination levels are down to 364 DPM alpha and 851 beta. The contamination is on his (L) hand.
1239 DM notified of update
1348 Began pre-job briefing with team to discuss path forward. Discussed bagging off drum and placing a new bag over drum. Team felt comfortable with moving forward.
1402 Team headed towards the back to begin work.
1450 Notified by CCO that an individual bumped his knee and obtained a small cut to his knee.

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

2-12-13 WCRR SOS Log Book

0610 Assuming SOS position for the day. [illegible]
0620 Starting Pre-Job brief. Safety Topic, Discussing winter driving conditions and slips trips and falls. Processing SP#72 and SP#57. 1 shipment out. Clean snow and applying ice melt to paths and areas where there will be traffic.
0640 Pre-Job Complete
0707 Signed off on inside and outside rounds.
0715 Mode Change. WCRRF in Operations.
0753 Bagging on first drum for the day.
0801 Bag on Complete.
0920 ~~Bagoff off~~ Bag off of first drum and Bag on of second drum Complete. JJ 2-12-13
1112 Bagging off drum number ~~three~~ two and Bagging on drum number three. JJ 2-12-13.
1143 Operator notifying Ops Center of a WCG High pressure alarm. Operator state that they were bagging on drum number three, as they were going through their bag on steps, when they were pulling off the ~~stato~~ stub off the WCG from the second parent the bag of third parent split on the seam approximately 12-18 inches long. Entering ARP-0401. Everything is in a safe configuration and non-essential personnel are exiting 50-69. Operator was able to place tape over the hole ~~wea~~ where it tore at the seam. No contamination was found, DD CAM alarms.
1155 All personnel were instructed by RCT's to leave the area in respirators and surveys will be performed outside in the Change room.
1157 Operator 39 was unable to clear the PCM. Contamination detected on his left hand.
1329 Operator 39 has been cleared, contamination appears to be RADON
1345 Held briefing with Operators going in and RCT's. The plan is to treat this as a normal Bag off Will probably have to use extra tape so that there

Continued on next Page

CCP Radiography Data Sheet

5881569

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:	92921
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.: 139.0 kg Tare Wt.: 33.4 kg Net Wt.: 105.6 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:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92921

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, metal hardware

AM:

OM: Scrap lead

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):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	5.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	85.6
Soils (S):	
Total WMP Weight:	105.6

CCP Radiography Data Sheet

Waste Container ID: 92921

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:	92921	Count Sequence Number:	15095
Operator:	DCLTD231\Operator		
Assay Start:	2/21/2013 11:36:18 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: 105.6 kg	Net:	105.6 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.560 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:	15095	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:	92921	Analysis Date:	2/21/2013

Net Weight	105600.0 g		
Pu mass	6.71E+001	+- 1.28E+001	g
TRU Alpha Activity	1.34E+001	+- 4.49E+000	Ci
TRU Activity Concentration	1.27E+005	+- 4.25E+004	nCi/g
Pu-239 Equivalent Activity	1.36E+001	+- 4.49E+000	Ci
Pu-239 FGE	6.27E+001	+- 1.19E+001	g
Decay heat	4.37E-001	+- 1.50E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.19E-001	8.50E-005	1.38E-005	1.72E-006
PU238	1.11E-002	1.92E-001	3.66E-002	5.94E-005
PU239	6.23E+001	3.92E+000	7.46E-001	1.21E-003
PU240	4.65E+000	1.07E+000	2.04E-001	3.31E-004
AM241	2.38E+000	8.26E+000	4.42E+000	6.17E-002
PU241	1.04E-001	1.08E+001	2.05E+000	3.33E-003
PU242	2.69E-002	1.07E-004	2.03E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.95E-007
U233	<LLD	<LLD	0.00E+000	8.34E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.39E-006
U238	<LLD	<LLD	0.00E+000	1.61E-005
AM243	4.47E-003	9.02E-004	1.47E-004	1.14E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 2·26·13

ITR: _____ Date: 2/26/13

Automated Independent Technical Review

Count Sequence Number: 15095 Batch Number: 2LANDA1103
Counter ID: HENC #2
Container ID: 92921
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. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Clearly Date: 2-26-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92921**

BDR Number: **LA13FG8015**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130301c\
Data File : 92921.D
Acq On : 1 Mar 2013 2:10 pm (#1); 1 Mar 2013 2:09 pm (#2)
Operator : NW
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 14:17:20 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	3.249	96	2267350	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2028450	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

UET
Working Copy
Date: 11-14-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90991

6.2[4] Date Processed: 11/14/12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: 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 1887231 11/14/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90991

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 391.8 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) 391.8 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1

Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90991

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92380			
10.1[4]	Daughter Drum Filter No.	JL-B12		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4328			
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)	N/A		N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90991

Comments: plastic, bolts, card board liner, metal lid, salts

11.1[1] Performed By: Michael Romero [signature] 182723 11/14/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] [signature] [illegible] 11/14/12 [illegible]
SOS or designee (print) Signature Z # Date/Time

UET Working Copy
Date: 11-7-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: IL-271
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: Michael Romero [signature] 189728 11-7-12
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] 189728 11-7-12
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] 149935 11.19.12
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 11-14-12

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92381

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: Michael Romero [signature] 182723 11/14/12
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: 019645
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 322.8 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 11/14/12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Martinez [signature] 149035 11-14-12
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92380

1. Drum/Lid Assembly

- [x] Remove and discard ½" 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: 3-012

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 #: GSPVC 1.5-2.5 SPVC
Serial #: L-4328
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 ½" 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: Dwc-Fil
Model #: 019 DS
Serial #: JL-1312
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
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: +/-3% cw +/-6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Brian Foreman Signature: B. Fo Z#: 235635

5. Weigh Drum Assembly

RECORD weight information

Tare weight (lbs) 76.0
File ID #: 0 Mo47

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: B Foreman Operator Sign: B. Fo Z#: 235635 Date: 11/8/12

Verifier Print: Michael Ramirez Verifier Sign: Michael Ramirez Z#: 182723 Date: 11/14/12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92380

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. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 284.6

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

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.

4. FINALIZE DOCUMENTATION

✓ Have RCP monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date 11/14/12

Verifier Print/Sign: Matthew Ramos Date: 11/14/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90991 Container Type: POC Gross Weight (lbs): 387

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-355, EL-408

K Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0029

TWSR Comments: PARENT #S881569 WTS-12STD-803

Total PE-Ci Activity: 1.87E+00 Equivalent Combustible PE-Ci: 7.03E-01 AM-241 PE-Ci: 1.70E-01

Total Fissile Gram Equivalents: 19.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/4/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% homogeneous solids

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☑ Other

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1/2 volume of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey / Signature: Susan S. Ramsey / Z Number: 100681 / Date: 9/4/12

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: 77 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 / Signature: Valerie Rhodes / Z Number: 112609 / Date: 10/4/12

WDP Engineering (Print)

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Do not push or press on waste. Use Hexamount gloves when processing waste.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez / Signature: Jose Jerez / Z Number: 221452 / Date: 10-11-12

TRU Remediation Operations (Print)

LL Z# 249750 10/15/12

IHS REVIEW: HS 206362 10.11.12

Noncertified TRU Waste Drum Item Information

DrumID: 023806

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	NT	Auth (Pg/La)	Comments
1	3OX17NS1		9.440	NITRATE SALTS	R00	10.66	52	1/13	G468
2	3LR17RS1A		9.280	NITRATE SALTS	R00	3.8	52	1/13	G468
3	3LR33RS1[illegible]		19.780	NITRATE SALTS	R00	8.11	52	1/13	G468
4	3LR31RS1		11.300	NITRATE SALTS	R00	5.22	52	1/13	G468
5	4LR25RS1		18.600	NITRATE SALTS	R00	19.81	52	1/13	G468
6	4OX26NS1		11.600	NITRATE SALTS	R00	8.79	52	1/13	G468
7	5LR2RS1		12.600	NITRATE SALTS	R00	8.52	52	1/13	G468
8	5LR2RS2		12.810	NITRATE SALTS	R00	6.34	52	1/13	G468
9	4LR12RS1		13.300	NITRATE SALTS	R00	5.79	52	1/13	G468
10	5OX10NS1		12.400	NITRATE SALTS	R00	47.24	53	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.6

Material Type	SNM (grams)	Items Net Wt (kg)
52	77.04	115.41
53	47.24	12.40
Totals	124.28	127.81

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])	90991					
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])	199.73 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON / 237975
CCP (Print) Z #

Reviewed By: NATHAN WALES / 238866
CCP (Print) Z #

Comments: Per attached email, container has been verified as PCC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: SUSAN RAMSEY / [signature] / 100681 / 10/10/12
Waste Handling Operator (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90991.D
Acq On : 5 Oct 2012 12:32 pm (#1); 05-Oct-12, 12:32:05 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS, unobstructe (Sig # , 55 gallon LFL drum through 019DS, unobstructed (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 12:40:49 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:26 2012
Response via : Initial Calibration

Compound	R.T.	Qion	Response	Conc Unit	RT(Min)
Internal Standards					
3) Fluorobenzene	3.555	96	7702709	201.25 ppmv	0.02
15) Chlorobenzene-d5	5.884	117	6349729	177.03 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.610	CC1	1412	199.13 ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

PROJECT NAME _____ INITIALS _____

11-14-12
0540 Assuming WCRR operations center. JC Clemran
0550 Beginning outside rounds.
0558 Beginning inside rounds.
0608 Outside rounds complete.
0615 Inside rounds complete. Pre-job being conducted by SCS.
0642 Pre-job completed.
0643 Left entry-at 0640, both rounds reviewed by SCS.
0659 We are now in operations. Mode change complete.
0735 Initiating drum movement from transportainer to 5069.
0736 Bagging on drum #90933.
0744 Drum movement into facility complete. Bag on complete.
0807 Bagging off 90933, bagging on 90942.
0823 Bag on complete.
0828 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G.
0835 Bagging off 90942, bagging on 91001.
0848 Bag on complete.
0916 Transfer vehicle loaded. Vehicle access gates restored. Transportainers closed and latched.
0920 Bagging off 91001, bagging on 90991.
0932 Bag on complete.
1020 Bagging off 90991.
1033 Bag off complete.
1045 Initiating drum movement from 5069 to a transportainer.
1100 Drum movement complete. All inventory has been removed from the facility.
1118 Mode change complete. We are now in COLD in 5069 and warm in WCRRF yard.
1350-1415 JC 11-14-12 Beginning outside rounds.
1400 Begin inside rounds.
1410 Outside rounds complete.
1422 Inside rounds complete.
1500 Glovebox maintenance performed on glovebox and is completed.
1512 Both rounds reviewed by SCS.
11-14-12 1630 End of day. Operations secure. JC Clemran

~~No further entries this page~~

SIGNATURE _____ DATE _____ 20__
READ AND UNDERSTOOD _____ DATE _____ 20__

0600 Assumed WCRR SOM position
0615 Attended pre job brief conducted by SOS. Discussed work plan for the day, night time driving safety tips, sharps in glove box.
0659 Completed mode change: WCRR Yard / Bldg 50-69 from Warm / ~~Cold~~ 11/14/12 Warm to Operations / Operations.
0736 First drum bagged onto WCG
1020 Bagging off 4th (last drum) to be processed today
1118 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.
1120 (Late Entry 1030) Received copy of USQ and WEF required to ship 3 TRU drums out of WCCR
1240 Verified w/ OSPOT that all TWSR's for tomorrows shipment have been generated and checked w/ inventory control that 22 containers will be on tomorrows shipment.
1245 (Late Entry 1200) Statused PM on 1200 call in WCRR and DUS work/issues.
1250 Reviewed MSS work packages for Dec PM's, standing WO's for FY 13.
1347 Released WO # 416885-06 54-WCRRP FY12 Relamping for 196 and Bldg 54.
1400 Attended mandatory meeting @ NSSB regarding major issues at LANL and other DOE sites raising management concerns.
1515 SOS reported that WCG glovebox maintenance was conducted including thourough wipedown of glovebox, replacing tape, no gloves were changed.
1530 OCO reported that electricians replaced lights inside 196 however outside light fixtures will require replacement.
1630 Secured SOM position

No further entries this date

SIGNATURE DATE 11/14/12
THE ABOVE HAS BEEN READ AND UNDERSTOOD DATE

11-14-12 WCRR SOS Log Book

0000 Assuming SOS position for the day. Reviewed SOS log book for yesterdays operation. [illegible]

0015 Started Pre-Job brief Safety Topic Van Drivers watching out for pedestrians during night time. Operators performing outside rounds should have a flashlight on when inspecting the barriers along the side of the road. Shipment out 4 drums remaining to process, going to COD this afternoon.

0630 Pre-Job brief Completed

0640 Inside and Outside rounds signed off by second SOS

0659 Mode Change - Operations in the Yard and 50-69.

0736 Bagging on first drum for the day

1033 Bagging off last drum for the day.

1118 Mode Change. Going into COD in 50-69 Yard will be in WCRR. Processed 4 pacers today from Solution Package 72. 4 Daughters generated no PCC's

1220 Crew going into 50-69 to perform glovebox maintenance. Performing inspections on gloves, wiping down the inside of the glovebox, general housekeeping inside of 50-69.

1530 Crew out from doing Glovebox Maintenance

11-14-12 1630 Securing SOS position for the day. [illegible]

1649

No further entries on this page.

CCP Radiography Data Sheet

5881369

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:	92380
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.: 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 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92380

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, metal hardware

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):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	61.1
Soils (S):	
Total WMP Weight:	96.1

CCP Radiography Data Sheet

Waste Container ID: 92380

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	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92380	Count Sequence Number:	23528
Operator:	D3PW2DK1\operator		
Assay Start:	9/4/2013 2:54:39 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: 96.1 kg	Net:	96.1 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.490 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:	23528	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:	92380	Analysis Date:	9/4/2013

Net Weight	96100.0 g		
Pu mass	1.68E+001	+-	3.08E+000 g
TRU Alpha Activity	4.62E+000	+-	1.72E+000 Ci
TRU Activity Concentration	4.81E+004	+-	1.79E+004 nCi/g
Pu-239 Equivalent Activity	4.66E+000	+-	1.72E+000 Ci
Pu-239 FGE	1.52E+001	+-	2.77E+000 g
Decay heat	1.51E-001	+-	5.72E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.60E-002	3.95E-005	5.96E-006	2.05E-006
PU238	5.75E-003	9.84E-002	1.80E-002	7.12E-005
PU239	1.51E+001	9.36E-001	1.72E-001	6.78E-004
PU240	1.65E+000	3.74E-001	6.85E-002	2.71E-004
AM241	9.37E-001	3.21E+000	1.71E+000	4.55E-002
PU241	2.03E-002	2.09E+000	3.83E-001	1.51E-003
PU242	4.24E-002	1.67E-004	3.06E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.48E-007
U233	<LLD	<LLD	0.00E+000	5.07E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.32E-006
U238	<LLD	<LLD	0.00E+000	1.01E-005
AM243	2.27E-003	4.54E-004	6.95E-005	6.63E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 9.5.13

ITR: [signature] Date: 9.5.13

Automated Independent Technical Review

Count Sequence Number: 23528 Batch Number: 1LANDA1835
Counter ID: MCS HENC #1
Container ID: 92380
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/4/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. 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 Chambers 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: **92380**

BDR Number: **LA13FG2098**

Sampling Date: **9/9/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	113.04	
74-82-8	Methane	142.14	U
67-56-1	Methanol	44.19	
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 : 92380.D
Acq On : 9 Sep 2013 1:15 pm (#1); 09-Sep-13, 13:14:50 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 13:23:58 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.538	96	4782675	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.845	117	3700832	177.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.618	GC1	850m	113.04	ppmv	
4) Methanol	0.876	31	16886	44.19	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S881570

S881570

Container 760937

File Options Reports Help

S881570

760937	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

S881570

- S881570
  - LA00000068451
  - LA00000068397
  - LA00000068461
    - LASB02097
  - LA00000068472 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000068461	0.0	kg

Working Copy
Date: 9-25-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S881570

6.2[4] Date Processed: 9-25-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☐ Moderate (≤ 10 rem/hr) ☑ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) 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: ADAM SEGOVIA [signature] Z762021 9-25-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5881570

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 403.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 80.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 483.0 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.: 5881570

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68451	68461		
10.1[4]	Daughter Drum Filter No.	LM-271	LM-261		A
10.1[4]	Daughter Drum Bag Filter No.	L-6750	L-6774	N	
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	TBOP			
	Model No.	6cpvc1.525pvc			
	Serial No.	L-6703			
	Date of Manufacture	1-13			
10.2[5]	POC ID No	68397			
10.2[7][B]/10.2[6]	POC Item Description	Nitrate salts			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BG 2491129	BG 9-25-13 2491129		
10.2[14]	POC Assembly Gross Weight (lb)	342.0			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1300.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N A			
10.3[5][A]	Free Liquid Volume/Units	~~9.25 gal~~ 10 gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	LEAD SHIELDING		A
10.3[9][A]	PCB-contaminated Waste Description	N A	N A	N	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments	see comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	95%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic	Plastic		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S881570

Comments: Kitty Litter, Liquid, PH 4, Lead, plastic, [illegible] Solids

11.1[1] Performed By: Brandon Chavez / [signature] 120[illegible] / 9-26-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [signature] 149835 / 9-25-13 0815
SOS or designee (print) Signature Z # Date/Time

UE Working Copy
Date: 9-25-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211427
Manufacture Date: 12

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.: 013
Serial No.: HK-1510
Manufacture Date: 8-10

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ Yes ☐ No

5. [11] Performed By: N/A / / / /
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: prep at TA-54 not at WCRRF

8.1[1] Performed By: Brandon Chavez / [signature] [illegible] 9-25-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mk / [signature] [illegible] 9.26-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-25-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68472

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 9-2-14
Range in ft-lb: 10-80
Tolerance: ± 3% cw ± 6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / [signature] [illegible] 9-25-13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 175.0 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / [signature] 1267129 9-25-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Mk / [signature] 14925 9-26-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68451

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.52spvc
Serial No.: L6750
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: JOE QUINTANA (Operator (print)) Joe Q (Signature) 289987 (Z #), 9/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 01905
Serial No.: LM 271
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): 16.0 lbs

5.[34][E] Drum ID No.: 68 451

Comments: N/A

5.[35] Performed By: JOE QUINTANA (Operator (print)) [signature] (Signature) 239987 (Z #) 9/18/13 (Date)

7.1[4] Reviewed By: G Mk (Supervisor or designee (print)) [signature] (Signature) 149235 (Z #) 9/26/13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68451

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: +/- 3% cw +/- 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Adam Segovia (Operator (print)) [signature] (Signature) 1276702 (Z #) 9-25-13 (Date)

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☐ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		N
Range in ft-lb:		A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: _____ / _____ / _____ / _____
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.: 68451

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 276 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: Brenda Chavez / [signature] / [illegible] 9-25-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: [illegible] / [signature] / [illegible] 9-26-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

9/23/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68461

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC 1.5-2 SPUC
Serial No.: L-6774
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	106216	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 Marquet (Operator (print)) [signature] (Signature) Z276208 (Z #) 9-23-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-261
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.: 68461

Comments: N/A

5.[35] Performed By: IAN MARQUAT (Operator (print)) [signature] (Signature) [illegible] (Z #) 9-26-13 (Date)

7.1[4] Reviewed By: G Mk (Supervisor or designee (print)) [signature] (Signature) [illegible] (Z #) 9-26-13 (Date)

ATTACHMENT 2
Page 1 of 2

9-25-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68461

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] 1204742 / 9-25-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:	N/A	N/A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: N/A in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 6811

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 394.4 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Brian Gallegos (Operator (print)) [signature] (Signature) 1267271 (Z #) 9-25-13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 149255 (Z #) 9-26-13 (Date)

Working Copy
Date: 9-25-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S881570

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): 403.0

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) 1276702 (Z #) 9-25-13 (Date)

8.1[7] Reviewed By: G Mh (Supervisor or designee (print)) (Signature) 149235 (Z #) 9-26-13 (Date)

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: G Mh (SOS/SOM or designee (print)) (Signature) 149235 (Z #) 9/26/13 (Date) 1612 (Time)

HERTR 2.1.11 RW 72 NC 6.10.12

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S881570 Container Type: 85-GAL Gross Weight (lbs): 407

Inner Seal #: 023808 Filter Prefix: LAS Filter Serial #: 03373

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST12 SEAL# A05608

Total PE-Ci Activity: 2.56E+01 Equivalent Combustible PE-Ci: 9.62E+00 AM-241 PE-Ci: 5.12E+00

Total Fissile Gram Equivalents: 159.9 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/29/2007 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 10/31/12 ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☐ >1,000 and <10,000 ☑ >10,000

TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: DR. W. Jones / J. Jones / 117434 / 10-28-12
Production Control (Print) Signature Z Number Date

SUSAN S. RAMSEY / Susan S. Ramsey / 100481 / 10/31/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Solid waste record indicates leached solids in form of nitrate salts. 7 items of salts, heaviest is 24 kg (53 lbs), net weight of 7 items is 110 kg (242 lbs). May require RWP for >10,000 mrem/hr @ 30-cm. Drum is internally shielded with lead.

Performed By: Michael Garcia / Michael Garcia / 099143 / 11/11/10
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 Heavyweight 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

Performed By: Clarissa Navarro / [signature] / 149225 / 4/15/13
TRU Remediation Operations (Print) Signature Z Number Date

Jose Sanez / [signature] / 221452 / 2/20/13

IHS Review - [signature] CSP, may contain Pb, Cr, Hg 11/5/12

Noncertified TRU Waste Drum Item Information

DrumID: 023808

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	6LR8ES1		13.200	NITRATE SALTS	R00	2.45	55	1/13	G468	
2	5OX2OWS1		10.200	NITRATE SALTS	R00	2.69	52	1/13	G468	
3	5LR6ES1		12.500	NITRATE SALTS	R00	3.67	55	1/13	G468	
4	5LR6ES2		20.300	NITRATE SALTS	R00	9.39	55	1/13	G468	
5	5DS18ES1		16.000	NITRATE SALTS	R00	3.01	52	1/13	G468	
6	6OX10WS1		13.900	NITRATE SALTS	R00	18.21	52	1/13	G468	
7	6LR9ES1		23.680	NITRATE SALTS	R00	144.7	55	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 184.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	23.91	40.10
55	160.19	69.68
Totals	184.1	109.78

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 11.9.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero		1236473	12-8-10

Container No. (7.[1]):	S881570	S881543	S881569
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]):	S881570	S881543	S881569
Hydrogen Reading (ppm) (7.[10]):	99.30 ppm	Ø ppm	680.60 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

* No torque value required for 072 or 073 filters – Record N/A as applicable

Comments:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera [signature] 198450 / 12-7-10
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 1117826 / 12.15.10
Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101109c\
Data File : S881570.D
Acq On : 9 Nov 2010 2:16 pm (#1); 09-Nov-10, 14:15:14 (#2)
Operator : GR
Sample :
Misc : 55GAL DRUM FROM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 09 14:26:28 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Fri Oct 22 10:16:32 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.730	96	9236864	206.75	ppmv	-0.01
15) Chlorobenzene-d5	6.046	117	7244624	183.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.640	GC1	753m	99.30	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Tue Nov 09 14:26:40 2010

9-24-13

1806 Assuming WCRR operations center. - JColeman
1824 Pre-job being conducted by SOS.
1841 Pre-job concluded.
1842 Procedure driven work is released.
2008 Operators entering 5069 to process drum #5841314.
2128 SOS reports that IH is inside 5069 and has found that the extension cord to the portable CAM has a broken prong and that the prong is stuck in the electrical socket. SOM notified.
2200 Bagging off 1 daughter, bagging on another daughter.
2215 Bag off/on complete. PPE check is sat.
1154 Operators out for lunch.
9-25-13 0104 Operators back from lunch.
0140 Submitted an FSR to remove the extension cord prong from the electrical receptacle. FSR# 112172.
0230 Beginning inside rounds.
0235 Beginning outside rounds.
0248 Item #63 is OOS, okay to proceed per CSE documentation.
0249 Inside rounds complete
0255 Item #19 is unsat, okay to proceed, FSR in place.
0257 Outside rounds complete.
0310 Denoting, bagging off 1 daughter, then bagging on 5881570
0342 Both rounds reviewed by SOS.
0412 Bag off/on, denoting complete.
0420 Operator 38 states his nose began to bleed while he was working in 5069. RCT's instructed him to leave the area.
0519 Initiating a drum movement from 5069 to a transportainer
0555 Drum movement out of 5069 complete.
0630 Relieved by CCO Clarissa Velarde, JColeman

No further entries this page.

9-25-13

0606 Assuming WCRRF CCO position. (Belanger)
0620 Pre-job being conducted by SOS.
0645 Pre-job being concluded by SOS.
0704 mode change performed TA50-69 and WCRRF yard now in warm standby.
0715 attending mandatory safety meeting at physics.
0880 Safety meeting concluded.
0853 mode change performed TA50-69 and WCRRF yard now in operations
0855 Procedure drum work is released.
0910 Operators continuing to process 3881570
1037 Permission granted to lower vehicle access gates for shipment to Area G.
1120 Bagging off 1 daughter, bagging on another daughter continuing to process.
1128 Vehicle access gates have been restored: Shipment out of WCRRF is complete.
1351 Starting monument into 50-69.
1407 Completed monument into 50-69.
1428 Starting inside rounds
1430 late entry 1143 bag on, bag off is complete. ok
1448 Item #113 SOS, POD in place okay to proceed per OSE documentation.
1451 Inside rounds complete
1518 Bagging off 1 daughter and POC, Bagging on 3833037.
1523 Starting outside rounds.
1547 Item #19 is uncut, FSE in place, OK to proceed.
1600 Bag on, Bag off complete. Outside rounds complete.
1617 Inside and outside rounds signed off by SOS.
1805 9-25-13 Returned by CCO Terry Oldman - Belanger

No further entries this page

9/24/13 Nightshift

1812 Reviewed shift turnover checklist and assumed WCRR SOM position.

1815 Attended pre job brief conducted by SOS - noted that Nightshift Operations watchbill is approved and posted. Safety topic was wearing of proper PPE when working w/ sharps and materials w/ edges. SOS encourages wearing leather gloves at all times except when high dexterity gloves are called for. IH covered MSDS sheet for new liquid neutralizing agent to be used in processing acid/base liquids. Updated operators on Fume Hood alarm function - operators requested correct way to silence/reset alarm be proceduralized since not all operators know how to.

2128 Notified by SOS that extension cord providing power to portable CAM unit had its grounding plug break off in electrical receptacle. Operators taking extension cord out of service and replacing. FSR being submitted for receptacle prong removal.

2215 Completed bag off of 1 daughter - continuing to process.

1154 Operators breaking for lunch

9/25/13 0104 Resuming Operations.

0412 All bag offs completed for Parent #5841314 (2 daughters total) Completed demesting and bag on of drum # 5881570.

0420 Notified of Operator getting a bloody nose in 50-69 while working - RCT's directed person to exit area. Operator was told to stay out of area for rest of the shift.

0519 Operators starting a move out of 9 drums from 50-69 to transportainers.

0554 Completed movement of drums.

0610 Relieved by J. Guardagnoli as SOM.

No further entries this page

9-25-13 DAYSHIFT

0610 Reviewed the shift turnover checklist and assumed the WCRR SOM Position John Guadagnoli.

0645 Completed attending the pre-job brief conducted by the SOS (Gilbert) Current Status, the drum is bagged on and secured with the lid. The safety topic was - how to respond to BLOODY NOSE. There is one transfer scheduled out, to be conducted this afternoon. One operator who used the transportainer key yesterday - will search for the key today. There is a scheduled tour of the WCG glovebox by CMR personnel, Scheduled arrival is noted for 0900 - Also the WGST monthly Safety meeting is scheduled today starting at 0730.

0704 Mode Change: 50/69 and yard transition from Operations/Operations to WARM/WARM

0853 Mode Change 50/69 and yard transition from WARM/WARM to Operations/Operations

0937 Completed providing an overview of WCRRF and glovebox WCG activities. RP-1 provided a brief to 5 CMR personnel. 4 personnel will enter 50-69.

1029 CMR personnel exited the 50/69 Facility. All questions were answered the personnel focused on glovebox safety and sharps.

1037 Operations initiate the transfer to AREA-G with P&T support and RP-1 support. They will load the Transfer vehicle and wait till after lunch to move the truck to G.

1120 Inside Operators initiate bag offs and Bagon of daughters and continue to process.

1130 Outside operations completed the movement to the Transfer Vehicle and the Vehicle Barrier Gates were restored

1145 Completed review and sign off for approval of 50-10-01 R28 for Torque Wrench Specs. to be posted in 50-69-102 and ARCTIC, and prior ~~postings~~ JOB AID will be removed. 9-25-13 Also vehicle Barrier Gate 50-10-05 R2 Operator AID was reposted. The prior posted AID was weather beat.

1214 Completed the noon call in, statusing the WCRRF with OM, SOM, and PM.

1235 Inside Operators break for lunch and report that Parent drum 5881570 - contained ~10 gallons of liquid. Upon pulling lid off, the filter venting the drum adhered to the Poly liner and the inner liner came out with the inner lead lid and drum lid releasing all of the liquid. Quick action by the Operators dammed the glovebox - not to allow liquid to get as high as the small window. and not go into the daughter drum. ph was noted as 2. Neutralizer was added and it came up to ~4, then operators absorbed. The CMR team observed the liquid in the box - The contents were 1.3 R. dose.

1351 Operators initiated movement into the facility 3 drums total, 5833037, 5825021, and 5823004.

(Continued on next page)

9-25-13 Dayshift (cont.)

1410 Discussed Dose estimates with the SOS and RP-1 on drums received. Based upon WCATS info vs SEDs, the SEDs information is more conservative by a factor of 10. Operations will plan on processing/re-inventory the essential drum SBB 2904 on Monday morning, with additional personnel on day shift to support and rotate as needed.

1518 Inside Operations report bagging off 1 daughter and 1 POC and bagging on Parent Drum S833037.

1559 Operations report completion of bag offs and bag on's.

1600 Extended Shift Order WCRR-SH-13-005 R0 - Provide precautionary Instructions to prevent bag tears till 10-2-13. Bag off and on completed

1621 Late entry for 0853 - procedural driven work is released to work

1723 The SOS is determining who the key custodian for WCRR is, to request approval to fabricate another key for the transportainer.

1804 Conducted shift turnover with Oncoming SOM, and utilized the shift turnover check list.

1814 Relieved by the oncoming SOM R. AXTEL [signature]

No further Entries this Page
[signature] 9-25-13

9/25/13 Night Shift

1814 Reviewed shift turnover checklist, approved and posted Night Shift Operations watch bill and assumed WCRR SOM position.

1815 Attended pre job brief conducted by SOS. Discussed current conditions of 50-69 and there is some discrepency between Operations and RP-1 turnover. SOS will evaluate. IH commented on good catch of operator identifying from MSDS review that new neutralizer will not be compatible w/ bases. Talked about rotating personnel working on WCG - not only for dose reduction but for preventing physical exhaustion as well.

2008 Completed drum movement of 6 drums from 50-69 to transportainers

2138 Completed bagging off parent # 583303 w/ 2 daughters and 1 POC total. Bagged on 582304

2356 Completed bag off of 1 daughter - continuing to process.

9/26/13 0003 Operators breaking for lunch

0125 Resuming operations.

0145 Completed move in of 3 drums into 50-69 for processing

0505 Completed move out of 4 drums from 50-69 to transportainers.

9/26/13 0612 Relieved by J. Guadagnolo as SOM

No further entries this page

9/23/13 WCRR SOS Log Book

1816 Assuming SOS position. CA

1820 Starting Pre-Job, discussed back and shoulder strains as well as quitting smoking aids.

1843 Pre-Job complete.

2020 Bagging off 1 daughter, denesting and bagging on S 821203.

2115 Denesting, bag off/on complete.

2334 Starting movement out of 50-69, as well as a move in.

2344 Move out of 50-69 complete.

2355 Operators notify that the fume hood is alarming, searching for past emails/notifications for a path forward. Unexpected Condition.

0009 At request of the SOM, RCT's will take smears to make sure nothing is coming out of the fume hood. Also being notified by ~~R~~ CM 9-23-13 operators that the radios interfere with the Allen Bradley.

0035 RCTs notified that all smears of the fume hood are NDA and they are also placing a portable CAM in front of the fume hood as a precautionary measure.

0224 SOM notifies OM, ~~and CSE~~ CM 9-23-13

0227 OM states to ~~notif~~ CM 9-23-13 reset alarm.

0235 SOM notified CSE.

0241 Operators reporting that reset fume hood failed.

0247 Per CSE, SOM will initiate an IOD for the fume hood.

0316 Move into 50-69 complete.

0352 Bagging off 1 daughter, bagging on a 2nd daughter.

0358 Operators report that during bag off the fume hood was again alarming and the message error is reading "Emergency." Will continue with bag off to place waste in a safe configuration.

0407 Bag off/on complete. Operators instructed to reset the fume hood, normal readings.

Continued on Next Page

9/24/13 WCRR SOS Log Book

0412 SOM calling a pause.

0422 Everything is in a safe configuration, Operators and RCT's exiting SO-69.

RRS 0520 Signed off on the rounds.

0615 Relieved by Gilbert Martinez. 9/24/13 CA

No Further Entries on this Page

9/25/13 WCRR SOS Log Book

1807 Assuming SOS position. CA

1818 Starting Pre-Job discussed correct steps taken for nose bleeds, using all tools and equipment correctly, and creating an operator aid for the alarm box of the fume hood.

1840 Pre-Job complete.

1925 Starting move out of 50-69.

2008 Move out complete.

2038 Bagging off 1 daughter and 1 POC (maybe 2 POC's), bagging on 5823004.

2138 Bag off/on complete, drum resulted in 2 daughters and 1 POC.

2348 Bagging off 1 daughter, bagging on a 2nd daughter.

2356 Bag off/on complete.

0137 Starting movement ~~out of 50-69.~~ EM 9-26-13 into 50-69.

0145 Movement in complete.

0455 Starting movement out of 50-69.

0505 Movement out complete.

0525 Signed of on the rounds.

0610 Relieved by Gilbert Martinez. 9/26/13 CA

No Further Entries on This Page

CCP Radiography Data Sheet

5881570

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0116
Examination Date:	10/4/2013
Waste Container ID:	68397
Video/Audio Recorded Media Number:	LA-RTR2-13-0116 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 156.0 kg Tare Wt.: 145.1 kg Net Wt.: 10.9 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:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68397

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 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):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	7.9
Soils (S):	
Total WMP Weight:	10.9

CCP Radiography Data Sheet

Waste Container ID: 68397

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid, therefore, the liner is vented.

RTR Operator:

Eric Lyles		10/4/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            68397              Count Sequence Number:  23709
Operator:           D3PW2DK1\operator
Assay Start:        10/24/2013 12:58:45 PM
Description 1:      1LANDA1852
Description 2:      POC - 156 Kg
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:        10.9   kg        Net:    10.9 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.649 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:	23709	Batch Number:	1LANDA1852
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68397	Analysis Date:	10/24/2013

Net Weight	10900.0 g		
Pu mass	2.14E+001	+-	3.25E+000 g
TRU Alpha Activity	5.91E+000	+-	2.13E+000 Ci
TRU Activity Concentration	5.42E+005	+-	1.95E+005 nCi/g
Pu-239 Equivalent Activity	6.29E+000	+-	2.13E+000 Ci
Pu-239 FGE	1.88E+001	+-	2.77E+000 g
Decay heat	1.93E-001	+-	7.08E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.03E-002	4.25E-005	7.56E-006	2.44E-006
PU238	1.14E-002	1.96E-001	2.97E-002	8.39E-005
PU239	1.82E+001	1.13E+000	1.72E-001	4.84E-004
PU240	2.91E+000	6.60E-001	1.00E-001	2.83E-004
AM241	1.14E+000	3.92E+000	2.12E+000	5.77E-002
PU241	1.97E-001	2.03E+001	3.09E+000	8.71E-003
PU242	5.71E-002	2.26E-004	3.43E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.03E-007
U233	<LLD	<LLD	0.00E+000	5.57E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.65E-006
U238	<LLD	<LLD	0.00E+000	8.53E-006
AM243	1.50E-003	2.99E-004	5.37E-005	7.56E-006

Errors quoted at 1.000 sigma

Operator: D. R. Date: 10.29.13

ITR: Martha Date: 10.29.13

Automated Independent Technical Review

Count Sequence Number: 23709 Batch Number: 1LANDA1852
Counter ID: MCS HENC #1
Container ID: 68397
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/24/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	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. Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Pu results taken from Passive Neutron data, U from Quantitative Gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,55.
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 used.

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 10/29/13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68397**

BDR Number: **LA13FG2115**

Sampling Date: **11/13/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	534.50	
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
141-43-5	MONOETHANOLAMINE	35.27
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
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 : 68397.D
Acq On : 13 Nov 2013 1:35 pm (#1); 13-Nov-13, 13:34:47 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 13:43:29 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	3.571	96	4604643	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.871	117	3516033	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.604	GC1	4019m	534.50 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet 5881570

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0116
Examination Date:	10/4/2013
Waste Container ID:	68451
Video/Audio Recorded Media Number:	LA-RTR2-13-0116 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 125.0 kg Tare Wt.: 33.4 kg Net Wt.: 91.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 68451

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):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	78.6
Soils (S):	
Total WMP Weight:	91.6

CCP Radiography Data Sheet

Waste Container ID: 68451

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eric Lyles		10/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68451	Count Sequence Number:	23707
Operator:	D3PW2DK1\operator		
Assay Start:	10/24/2013 11:26:22 AM		
Description 1:	1LANDA1852		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 91.6 kg	Net:	91.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.680 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23707	Batch Number:	1LANDA1852
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68451	Analysis Date:	10/24/2013

Net Weight	91600.0 g			
Pu mass	8.36E+000	+-	1.55E+000	g
TRU Alpha Activity	5.28E+000	+-	2.44E+000	Ci
TRU Activity Concentration	5.76E+004	+-	2.67E+004	nCi/g
Pu-239 Equivalent Activity	5.43E+000	+-	2.44E+000	Ci
Pu-239 FGE	7.35E+000	+-	1.52E+000	g
Decay heat	1.74E-001	+-	8.12E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.03E-007
U233	<LLD	<LLD	0.00E+000	6.85E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.04E-006
NP237	6.97E-002	4.92E-005	9.00E-006	3.08E-006
PU238	4.47E-003	7.65E-002	1.90E-002	5.01E-003
U238	<LLD	<LLD	0.00E+000	1.36E-005
PU239	7.12E+000	4.42E-001	9.44E-002	2.89E-002
PU240	1.14E+000	2.58E-001	6.49E-002	1.69E-002
AM241	1.31E+000	4.50E+000	2.44E+000	7.79E-002
PU241	7.71E-002	7.95E+000	2.01E+000	5.20E-001
PU242	2.23E-002	8.82E-005	2.21E-005	0.00E+000
AM243	2.38E-003	4.75E-004	8.76E-005	9.42E-006

Errors quoted at 1.000 sigma

Operator: D R. [illegible] Date: 10.29.13

ITR: Marta [illegible] Date: 10.29.13

Automated Independent Technical Review

Count Sequence Number: 23707 Batch Number: 1LANDA1852
Counter ID: MCS HENC #1
Container ID: 68451
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/24/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	OK
Section 3 - Data Combiner Analysis Override enabled; 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-52,55.
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: _____ Date: 10/29/13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68451**

BDR Number: **LA13FG2107**

Sampling Date: **10/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	359.61	
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\131028c\
Data File : 68451.D
Acq On : 28 Oct 2013 10:26 am (#1); 28-Oct-13, 10:26:03 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 28 10:34:39 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.561	96	5546438	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.868	117	4172923	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.612	GC1	2704m	359.61	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

19

CCP Radiography Data Sheet

5881570

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0116
Examination Date:	10/4/2013
Waste Container ID:	68461
Video/Audio Recorded Media Number:	LA-RTR2-13-0116 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 179.0 kg Tare Wt.: 33.4 kg Net Wt.: 145.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68461

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):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	122.6
Soils (S):	
Total WMP Weight:	145.6

CCP Radiography Data Sheet

Waste Container ID: 68461

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eric Lyles		10/4/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            68461              Count Sequence Number:  16602
Operator:           DCLTD231\Operator
Assay Start:        10/4/2013  12:10:25 PM
Description 1:      2LANDA1231
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6, Not Precision
Matrix Type:        Homo Sol. S3000
Container Type:     55 gal Drum
Weight:             Net:       146.0   kg        Net:   146.0 kg
Container:          Volume:    208.0   l        Full:    90.0 %
Density:                         0.780 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:	16602	Batch Number:	2LANDA1231
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68461	Analysis Date:	10/4/2013

Net Weight	146000.0 g		
Pu mass	2.07E+002	+-	3.98E+001 g
TRU Alpha Activity	3.38E+001	+-	8.57E+000 Ci
TRU Activity Concentration	2.32E+005	+-	5.87E+004 nCi/g
Pu-239 Equivalent Activity	3.59E+001	+-	8.59E+000 Ci
Pu-239 FGE	1.81E+002	+-	3.91E+001 g
Decay heat	1.09E+000	+-	2.83E-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	1.48E-006
U233	<LLD	<LLD	0.00E+000	1.59E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.71E-006
NP237	2.26E-001	1.60E-004	3.14E-005	3.85E-006
PU238	1.02E-001	1.74E+000	4.57E-001	1.00E-002
U238	<LLD	<LLD	0.00E+000	3.00E-005
PU239	1.77E+002	1.10E+001	2.42E+000	6.32E-002
PU240	2.83E+001	6.42E+000	1.68E+000	3.69E-002
AM241	4.28E+000	1.47E+001	8.03E+000	1.16E-001
PU241	1.11E+000	1.14E+002	2.98E+001	6.55E-001
PU242	5.56E-001	2.20E-003	5.76E-004	0.00E+000
AM243	4.56E-003	9.13E-004	1.80E-004	2.28E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/8/13

ITR: _____ Date: 10-8-13

Automated Independent Technical Review

Count Sequence Number: 16602 Batch Number: 2LANDA1231
Counter ID: HENC #2
Container ID: 68461
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/4/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	OK
NCC Pu mass was above calibration range. FGE is greater than the upper limit of 200.00 The Standard NCC Pu effective mass exceeds the Upper Calibration Limit. No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root.	The measured Pu-240 eff. mass exceeds the 16.28g calibration limit of the neutron instrument. Neutron data show multiplication. Neutron results not applied. Gamma results applied. Gamma results consistent with AK. Pu-239 FGE+2*TMU >200 but <325.
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.

Comments	Disposition
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-52,55.
Section 5 - Gamma Analysis Analysis Status: No errors. Ratio of Pu-239 414 to 129 keV line activities is above the limit of 2.50	OK After EA review, results valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu-239 FGE+2*TMU >200 but <325.

Expert Review by: [signature] Date: 10-8-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68461**

BDR Number: **LA13FG2106**

Sampling Date: **10/24/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	894.11	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131024c\
Data File : 68461.D
Acq On : 24 Oct 2013 1:11 pm (#1); 24-Oct-13, 13:10:51 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 24 13:19:21 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.562	96	5393878	205.75	ppmv	0.04
15) Chlorobenzene-d5	5.871	117	4173796	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.557	GC1	6723m	894.11	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed