

From: Roger Wagner
To: [Cassata, James](#)
Subject: [External_Sender] RE: Information
Date: Monday, August 06, 2018 10:50:49 AM
Attachments: [image001.jpg](#)
[IMG_1969.jpg](#)
[IMG_1968.jpg](#)
[NUKE_20180806103901.pdf](#)

47-19784-01
03019240

As per our discussion, please find attached the final survey I conducted today with the Ludlum Model 3 Survey meter. The storage room was 14 ft by 8 ft. so I used a 2 ft. grid which provided 18 data points. All data points measured were below background (<0.05 mR/Hr.). I also provided pictures of the survey meter and the calibration sticker.

Let me know if you need anything else.

Thanks,

Roger Wagner
RPO

From: Cassata, James <James.Cassata@nrc.gov>
Sent: Monday, August 06, 2018 8:31 AM
To: Roger Wagner <rwagner@ferroglobe.com>
Subject: RE: Information
Importance: High

Roger,
Thank you for all the files. I have reviewed the data and it looks good. I think we will be in good shape with the addition of the final survey. Please be sure to include the make, model, calibration date of the survey meter, date of survey, name of individual performing the survey, and a diagram of the storage room surveyed with results of each measurement. I really appreciate all the cooperation and help. I will email you back after you send the final survey.
Take care,
Jim

James R. Cassata, Ph.D., CHP
Health Physicist
Nuclear Regulatory Commission (NRC), Region I
Division of Nuclear Materials Safety (DNMS),
Commercial, Industrial, R&D, and Academic Branch (CIRDA)
Office: 610-337-5303
Fax: 610-337-5269
james.cassata@nrc.gov

REC'D IN LAT 08/10/2018

608909
NMSS/RGNI MATERIALS-002

ISOCCER

From: Roger Wagner [<mailto:rwagner@ferroglobe.com>]

Sent: Monday, August 06, 2018 8:16 AM

To: Cassata, James <James.Cassata@nrc.gov>

Subject: [External_Sender] Information

James:

I hope it wasn't confusing the way I sent that material to you, but I do believe you should have everything (except the survey, which I will do today) you need. I'll send the survey as we discussed the other day a little later.

Thanks and let me know if you need anything else,

Roger Wagner

Corporate Director of Quality

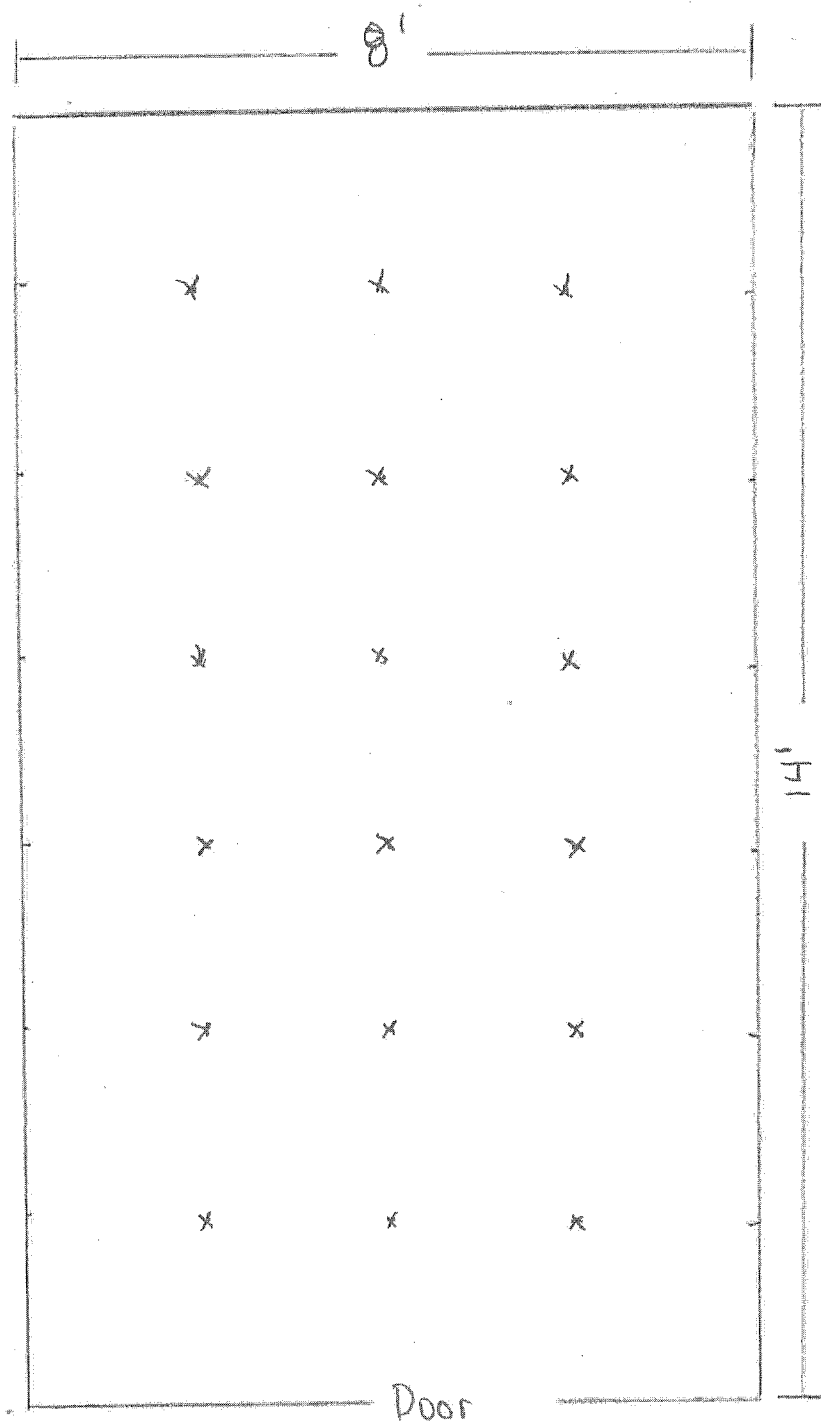
Cell (304) 640 – 2131

Office (304) 779 – 3379

WVA Manufacturing's Nuclear Storage Room Final Survey

A final nuclear survey was performed on the nuclear storage area on 8/6/18. I utilized a Ludlum Model 3 Survey Meter (meter s/n 244131, last calibrated 3/19/18) and utilized a 2 ft. grid pattern providing 18 sample points. No sample was above background (<0.05 Mr/hr).

Background
0.05 Mr/hr



CALIBRATION PER NRC REGULATION 10-CFR-34 & 10-CFR-35

Calibrated by B. Dowling on 3/19/18

Calibration void after 3/19/19

Meter s# 244131 Detector s# PR255612

Sources Used Cs-137

Battery Check SAT. Check Source N/A

Detector Angle Perpendicular to the field

Correction Factor N/A \pm 10%

Notes: mR/h

Notes:

APPLIED HEALTH PHYSICS, LLC - 2986 INDUSTRIAL BLVD.
BETHEL PARK, PA 15102 • PHONE 1-800-332-6648

AUD

OFF

S

OFF

CAL
COVER



MODEL 3
SURVEY METER



LUDLUM MEASUREMENTS INC.
SWEETWATER, TEXAS



CE



WVA Manufacturing, LLC
P.O. Box 248
Route 60 E
Alley, WV 25002-0248
Phone: 304-779-3200
Fax: 304-779-3297
www.glbsm.com

July 27, 2018

Jim Cassata:

As per our phone conversation earlier this week, please find attached the documents you requested in the 600 dpi size we discussed. We sent out two shipments of nuclear devices to Bionomics. I have included documentation for both and a spreadsheet we used internally to ensure that all devices on our license were accounted for. Please note that the second shipment of nuclear devices were leak wiped when they were taken off of the furnace and placed into storage. I'll include all of that documentation also.

The only item that we discussed that I cannot provide you at this time is the survey of the storage area d because my calibration for my source survey meter has expired. I'll, make arrangements to get this item completed as soon as possible.

Let me know if you need anything else from me.

Thanks,

A handwritten signature in black ink, appearing to read 'W.R. Wagner, II' with a stylized flourish at the end.

W.R. Wagner, II
Radiation Protection Officer

Radioactive Materials Current Activity

Manufacturer	Model #	Serial #	Isotope	Activity (mCi)	Location	Assay Date	Current Date	Current Activity (mCi)
Ohmart	SHRHA	M-835	CS-137	500	#3 Fce Mix Bins 1&2 South	9/28/1974	1/5/2018	185.0
Ohmart	SHRHA	46111	CS-137	300	#3 Fce Mix Bins 3&4 South	9/28/1974	1/5/2018	111.0
Ohmart	SHRHA	L-143	CS-137	300	#3 Fce Mix Bins 5&6 South	9/28/1974	1/5/2018	111.0
Nuclear Chicago	5192	213	CS-137	200	#3 Fce Mix Bin 7 Center	9/28/1974	1/5/2018	74.0
Ohmart	SHRHA	7135	CS-137	500	#3 Fce Mix Bins 8&9 North	9/28/1974	1/5/2018	185.0
Ohmart	SHRHA	44634	CS-137	500	#3 Fce Mix Bins 10&11 North	9/28/1974	1/5/2018	185.0
Ohmart	SHRHA	511-24	CS-137	1000	#3 Fce Mix Bins 12&13 North	9/28/1974	1/5/2018	370.0
Nuclear Chicago	5192	194	CS-137	200	#3 Fce Mix Hopper #14	9/28/1974	1/5/2018	74.0
Nuclear Chicago	5192	281	CS-137	200	#3 Fce Mix Hopper #15	9/28/1974	1/5/2018	74.0
Nuclear Chicago	5192	280	CS-137	200	#3 Fce Mix Hopper #16	9/28/1974	1/5/2018	74.0
Nuclear Chicago	5192	284	CS-137	200	#3 Fce Mix Hopper #17	9/28/1974	1/5/2018	74.0
Nuclear Chicago	5192	289	CS-137	200	#3 Fce Mix Hopper #18 SE	9/28/1974	1/5/2018	74.0
Nuclear Chicago	5192	196	CS-137	200	#3 Fce Mix Hopper #19 NE	9/28/1974	1/5/2018	74.0
Nuclear Chicago	5192	242	CS-137	200	#6 Fce Mix Bin 13 South	11/20/1973	1/5/2018	72.6
Nuclear Chicago	5192	241	CS-137	200	#6 Fce Mix Bin 14	11/20/1973	1/5/2018	72.6
Nuclear Chicago	5192	237	CS-137	200	#6 Fce Mix Bin 15	11/20/1973	1/5/2018	72.6
Nuclear Chicago	5192	235	CS-137	200	#6 Fce Mix Bin 16 North	11/20/1973	1/5/2018	72.6
Ohmart	SHRM-PA	62680	CS-137	150	#7 Fce Mix Bin 17 South	7/31/1973	1/5/2018	54.4
Ohmart	SHRM-PA	62679	CS-137	150	#7 Fce Mix Bin 18	7/31/1973	1/5/2018	54.4
Ohmart	SHRM-PA	60446	CS-137	150	#7 Fce Mix Bin 19	7/31/1973	1/5/2018	54.4
Ohmart	SHRM-PA	62676	CS-137	150	#7 Fce Mix Bin 20 North	7/31/1973	1/5/2018	54.4
Texas Nuclear	5192	503	CS-137	200	Storage Room, Bldg. No.15	2/1/1975	1/5/2018	74.6
Texas Nuclear	5192	501	CS-137	200	Storage Room, Bldg. No.15	2/1/1975	1/5/2018	74.6
Texas Nuclear	5192	496	CS-137	200	Storage Room, Bldg. No.15	2/1/1975	1/5/2018	74.6
Texas Nuclear	5192	493	CS-137	200	Storage Room, Bldg. No.15	2/1/1975	1/5/2018	74.6
Berthold Systems, Inc.	LB 7400 D/L	NR-112-D-102-B	CS-137	30	Charcoal Bin No. 301 Mixhouse			
Nuclear Chicago	5192	197	CS-137	200	Storage Room, Bldg. No.15	9/19/1996	1/5/2018	18.4
Nuclear Chicago	5192	214	CS-137	200	Storage Room, Bldg. No.15	8/1/1978	1/5/2018	80.9
Texas Nuclear	5192	B5497	CS-137	200	Storage Room, Bldg. No.15	8/1/1978	1/5/2018	80.9
Texas Nuclear	5192	B5496	CS-137	200	Storage Room, Bldg. No.15	4/1/1989	1/5/2018	103.0
Texas Nuclear	5192	B5498	CS-137	200	Storage Room, Bldg. No.15	4/1/1989	1/5/2018	103.0
Texas Nuclear	5192	B5499	CS-137	200	Storage Room, Bldg. No.15	4/1/1989	1/5/2018	103.0
Nuclear Chicago	5192	230	CS-137	200	Storage Room, Bldg. No.15	4/1/1989	1/5/2018	103.0
Nuclear Chicago	5192	303	CS-137	200	Storage Room, Bldg. No.15	1/5/1978	1/5/2018	79.8
Nuclear Chicago	5192	224	CS-137	200	Storage Room, Bldg. No.15	1/5/1978	1/5/2018	79.8
Nuclear Chicago	5192	296	CS-137	200	Storage Room, Bldg. No.15	1/5/1978	1/5/2018	79.8
Nuclear Chicago	5192	306	CS-137	200	Storage Room, Bldg. No.15	1/5/1978	1/5/2018	79.8
Total Curies								3.5

8.93

1-24-18
12-4-17



COMPLETE RADIOLOGICAL SERVICES

Globe Metallurgical, Inc.
Route 60 East
P.O. Box 248
Alloy, WV 25002

December 27th, 2017

Attention: Roger Wagner

FIELD SERVICE REPORT

Description of Services

Applied Health Physics, LLC was contacted by *Globe Metallurgical, Inc.* with a request for radiological consulting services. *Globe Metallurgical, Inc.* possesses multiple devices containing sealed sources for the purpose of level measurement at the facility located in Alloy, WV. The request was for non-routine maintenance services consisting of the unbolting and placement into secure storage of (14) devices. These services were provided under the terms and conditions of The Pennsylvania Department of Environmental Protection (PADEP) License Number PA-0228A and a reciprocal agreement with the United States Nuclear Regulatory Commission (USNRC).

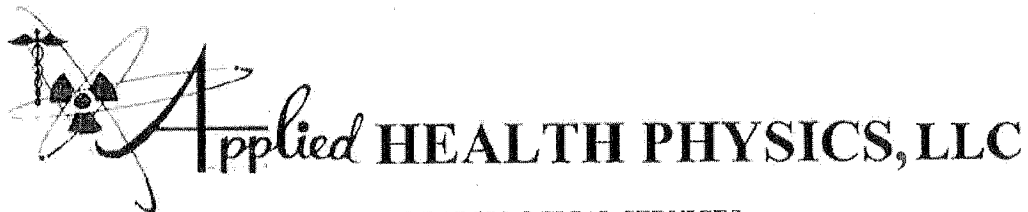
Scope of Services

Applied Health Physics, LLC technicians Brandon Woods and Bill Dowling visited the Alloy, WV facility on December 12th, 2017. During this visit, AHP representatives provided the following services:

- Confirmation of lockout/tagout out of shutter mechanisms for (14) devices
- Unbolting of (14) devices from fixed positions
- Leak testing of all (14) devices
- Relocation and placement into secure storage of (14) devices
- Inventory of (14) devices verifying accurate information
- Radiation exposure survey of exterior secure storage area
- Proper posting of the secure storage area "Caution Radioactive Materials"

Onsite Contact

Mr. Dustin Smith (*Globe Metallurgical, Inc. Safety Engineer*) escorted the AHP representatives throughout the facility and answered all questions pertaining to device use and safety.



COMPLETE RADIOLOGICAL SERVICES

Device Information

The following devices were placed into secure storage during the visit:

Manufacturer	Model	Isotope	Activity	Serial #
Ohmart	SHRH-A	Cs-137	1000 mCi	511-24
Ohmart	SHRH-A	Cs-137	500 mCi	M-835
Ohmart	SHRH-A	Cs-137	500 mCi	713S
Ohmart	SHRH-A	Cs-137	500 mCi	44634
Ohmart	SHRH-A	Cs-137	300 mCi	46111
Ohmart	SHRH-A	Cs-137	300 mCi	L-143
Nuclear Chicago	5192	Cs-137	200 mCi	213
Nuclear Chicago	5192	Cs-137	200 mCi	194
Nuclear Chicago	5192	Cs-137	200 mCi	281
Nuclear Chicago	5192	Cs-137	200 mCi	280
Nuclear Chicago	5192	Cs-137	200 mCi	284
Nuclear Chicago	5192	Cs-137	200 mCi	289
Nuclear Chicago	5192	Cs-137	200 mCi	196
Berthold	LB 7400	Cs-137	30 mCi	NR-112-D-102-B

Survey Instrumentation

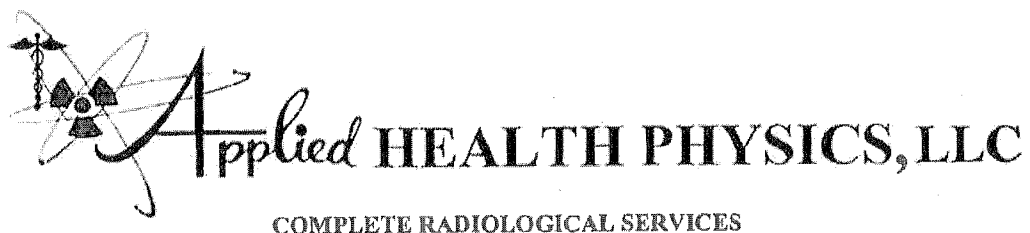
Applied Health Physics, LLC utilizes radiological instrumentation that is recognized as standard in the nuclear industry for assessments of this type. AHP's portable field service meters are calibrated semi-annually to ensure accuracy; laboratory equipment is calibrated annually. All instrumentation is source checked prior to use.

Equipment utilized for the radiological services provided at the Globe Metallurgical, Inc. facility included the following:

Manufacturer	Model	Serial Number	Calibration Due	Background
Bicron	Surveyor 2000	AHP0701	06/05/2018	0.01 mR/hr

Findings

- The devices were unbolted and placed into secure storage in good condition
- All device shutter mechanisms were secured in the "Closed" position
- Leak testing for all (14) devices was completed (*See Attached Results*)
- The radiation survey results indicated exposures below limits to members of the general public surrounding the secure storage area (*See Attachment 1*)
- The secure storage area was properly posted "*Caution Radioactive Materials*"



Recommendations

Applied Health Physics, LLC recommends the following to ensure regulatory compliance:

- Maintain a copy of this report and attachments for possible regulatory review
- Continue to utilize licensed vendors for non-routine maintenance activities

If there are any questions concerning this report, please contact Applied Health Physics, LLC at (412)-835-9555.

Best Regards,

Brandon Woods

Technical Associate

Applied Health Physics, LLC

Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

This certificate shall not be reproduced except in full, without the written approval of Applied Health Physics.

Device Information

Device Serial Number:	511-24	Source Serial Number:	
Device Manufacturer:	Ohmart	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	Location:
Radioisotope:	Cs 137	Activity:	1000 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-12	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

This certificate is an essential record and should be maintained for inspection by the regulatory agency.

Next LT Due 6/12/2018

Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	M-835	Source Serial Number:	
Device Manufacturer:	Ohmart	Source Manufacturer:	
Device Model:	SHRH-A	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
		Activity:	500 mCi

Leak Test Information

Leak Test Performed by:	B Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-1	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

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P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: knoble.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	713-S	Source Serial Number:	713-S
Device Manufacturer:	Ohmart	Source Manufacturer:	Ohmart
Device Model:	SHRH-A	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs-137	Location:	#3 Fce
	Activity:	500 mCi	

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-6	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

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Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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Mark V Leak Test Certificate

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Device Information

Device Serial Number:	44634	Source Serial Number:	
Device Manufacturer:	Ohmart	Source Manufacturer:	
Device Model:	SHRH-A	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
	Activity:	500 mCi	

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-14	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

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Client Information

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P.O. Box 248	Contact:	FAX
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Alloy	WV	25002

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Mark V Leak Test Certificate

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Device Information

Device Serial Number:	46111	Source Serial Number:	
Device Manufacturer:	Ohmart	Source Manufacturer:	
Device Model:	SHRH-A	Source Model:	
Device Type: Gauge	Make:	Location:	
Radioisotope: Cs 137	Activity: 300 mCi		

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-3	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

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Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
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Alloy	WV	25002

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E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	L-143	Source Serial Number:	
Device Manufacturer:	Ohmart	Source Manufacturer:	
Device Model:	SHRH-A	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
	Activity:	300 mCi	

Leak Test Information

Leak Test Performed by:	B Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-10	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

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Client Information

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Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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Mark V Leak Test Certificate

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Device Information

Device Serial Number:	213	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
		Activity:	200 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-9	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

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Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

This certificate shall not be reproduced except in full, without the written approval of Applied Health Physics.

Device Information

Device Serial Number:	194	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
	Activity:	200 mCi	

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-7	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

This certificate is an essential record and should be maintained for inspection by the regulatory agency.

Next LT Due 6/12/2018

Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: knobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	281	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
		Activity:	200 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-5	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	280	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
		Activity:	200 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-13	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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Next LT Due 6/12/2018

Applied Health Physics, LLC

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E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	284	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
		Activity:	200 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-8	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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Next LT Due 6/12/2018

Applied Health Physics, LLC

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E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	289	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
		Activity:	200 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-4	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	≤ 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

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Next LT Due 6/12/2018

Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

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Device Information

Device Serial Number:	196	Source Serial Number:	
Device Manufacturer:	Nuclear Chicago	Source Manufacturer:	
Device Model:	5192	Source Model:	
Device Type:	Gauge	Make:	
Radioisotope:	Cs 137	Location:	
	Activity:	200 mCi	

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-11	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

This certificate is an essential record and should be maintained for inspection by the regulatory agency.

Next LT Due 6/12/2018

Applied Health Physics, LLC

2986 Industrial Blvd., Bethel Park, Pa 15102 Phone: (412) 835-9555 Fax: (412) 835-9559
E-Mail address: kmobley.ahp@comcast.net - Web Page address: WWW.APPLIEDHEALTHPHYSICS.COM

Mark V Leak Test Certificate

This certificate shall not be reproduced except in full, without the written approval of Applied Health Physics.

Device Information

Device Serial Number:	NR-112-D-102-B	Source Serial Number:	NR-112-D-102-B
Device Manufacturer:	Berthold	Source Manufacturer:	Berthold
Device Model:	LB7400 D/L	Source Model:	LB7400 D/L
Device Type:	Gauge	Make:	Moisture
		Location:	#301 Mix House
Radioisotope:	Cs - 137	Activity:	30 mCi

Leak Test Information

Leak Test Performed by:	B. Woods	Leak Test Performed on:	12/12/2017
Leak Test Specimen Number:	121217-2	Leak Test Analysis Date:	12/18/2017
Leak Test Analysis Performed by:	L. McAllister		
Leak Test Results Indicate an Activity of:	< 0.005 uCi		

Notification

Analysis of this leak test sample was provided by Applied Health Physics, LLC. Pennsylvania Department of Environmental Protection License Number PA-0228A. In the event this specimen indicates leakage and or contamination in excess of 0.005 microcuries, Applied Health Physics, LLC will notify you promptly by telephone; at such time you will need to take the appropriate actions required by the governing regulatory agency. Applied Health Physics, LLC utilizes the following for leak test (wet-swab) analysis: Model: MARK V Leak Test Kit. Applied Health Physics, LLC utilizes the following instruments for all MARK V Leak Test analysis: Protean Instruments - ASC-950 ; Perkin Elmer - Tri-Carb 2800TR ; Ludlum Measurements - 2200 and Ludlum Measurements - 2929.

Client Information

WVA Manufacturing, LLC	Contact:	Roger Wagner
Route 60 East	Phone:	(304) 640-2131
P.O. Box 248	Contact:	FAX
	Phone:	(304) 779-3297
Alloy	WV	25002

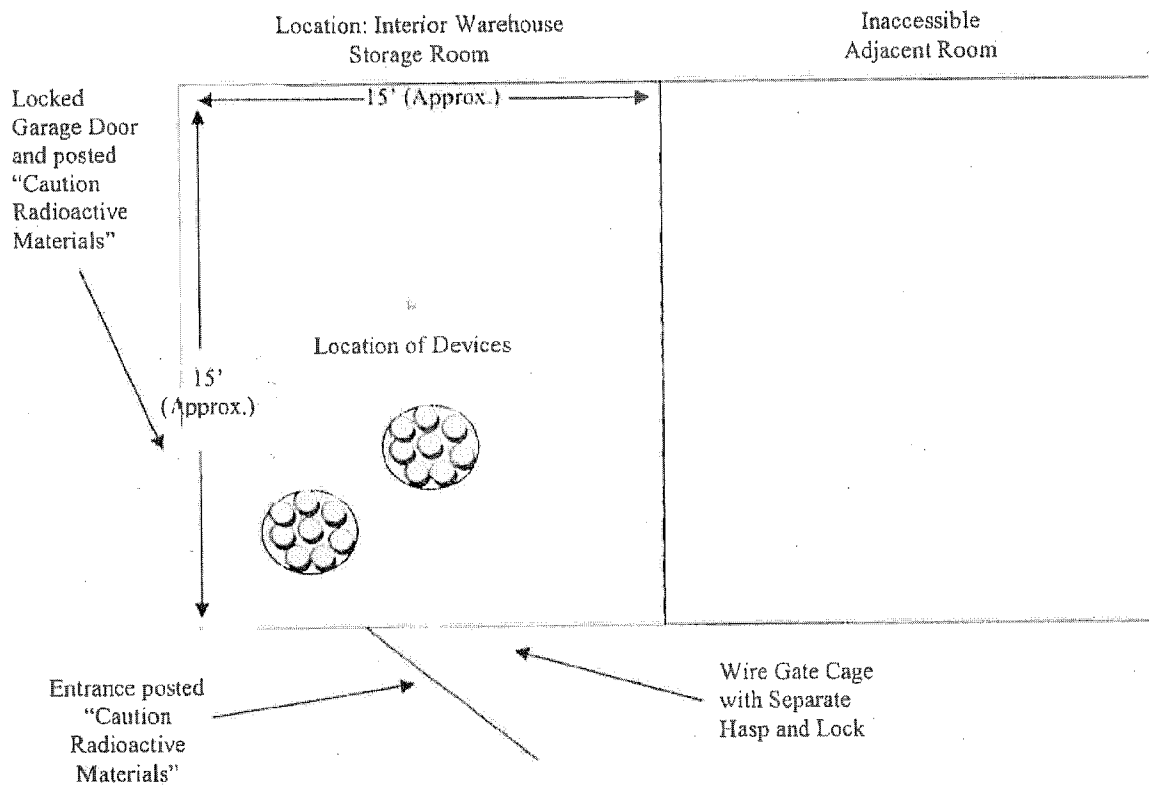
This certificate is an essential record and should be maintained for inspection by the regulatory agency.

Next LT Due 6/12/2018



COMPLETE RADIOLOGICAL SERVICES

Attachment 1
Secure Storage Area Survey Sketch



Survey Instrument Information:

Storage Area Survey:

Exterior of Building Maximum: 0.6 mR/h
30 cm: 0.01 mR/h
1 meter: 0.01 mR/h

Manufacturer: Bicron
Model: Surveyor 2000
Serial #: AHP0701
Calibration Due: 06/05/2018
Background: 0.01 mR/h

Surveyor: Bill Dowling & Brandon Woods

Date: 12/8/2017

Estimated Nation per response to comply with this information collection request: 48 minutes. This uniform manifest is required by HRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Research and FOMAP/Necky Services Branch (T-5 P3), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by Internet e-mail to information@nrc.gov and to the Office of Management and Budget, Washington, DC 20503. If a month is used to impose an information collection does not display a currently valid OMB control number, the NRC may not comply with the information collection.

FORM 540		Bionomics, Inc.		SHIPPER - NAME AND FACILITY		SHIPMENT TO NUMBER		FORM 540 AND 540A		PAGE 1 OF 1 PAGES		8. MANIFEST NUMBER	
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST		Bionomics, Inc. for Global Metallurgical, Inc.		Rm 60 East		1204-017CHVAPA		FORM 541 AND 541A		NONE PAGES		(Use this number on all continuation pages)	
SHIPPING PAPER		Alky, WV 26002		SHIPMENT NUMBER		1217GMI		FORM 542 AND 542A		NONE PAGES		1217GMI	
1. EMERGENCY TELEPHONE NUMBER (include Area Code)		(800) 424-9920		USER PERMIT NUMBER		1217GMI		9. CONSIGNEE - Name and Facility Address		Bionomics, Inc.		CONTACT	
ORGANIZATION		CHEMTREC / CHN25454		CONTACT		Roger Wagner		OPERATED BY Bionomics, Inc.		1550 Bear Creek Road		TELEPHONE NUMBER	
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?		[] YES		8. CARRIER - Name and Address		Truck #:		1550 Bear Creek Road		(Include Area Code)		(688) 220-8501	
[X] NO		1		CONTACT		John McCormick		SHIPMENT DATE		1204-2017		DATE	
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT?		[] YES		EPA I.D. NUMBER		TND982118493		SHIPMENT DATE		1204-2017		12-4-17	
[X] NO		N/A		CONTACT		John McCormick		SHIPMENT DATE		1204-2017		12-4-17	
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information)		DOT LABEL "RADIOACTIVE"		12. DOT LABEL "RADIOACTIVE"		Yellow II		13. TOTAL WEIGHT OR VOLUME (Use appropriate units)		17. LSA/SCO CLASS		18. IDENTIFICATION NUMBER OF PACKAGE	
UN2915, RADIOACTIVE MATERIAL, TYPE A, PG. 7, RQ		0.4		SOLIDOXIDES		CS-137		2.368E+05 (6.2400E+03)		NA		7.60 N3	
SEALED SOURCES		0.4		SOLIDOXIDES		CS-137		2.368E+05 (6.2400E+03)		NA		1000.00 lb	
1.55 GAL METAL DRUM		0.4		SOLIDOXIDES		CS-137		2.368E+05 (6.2400E+03)		NA		1000.00 lb	
FOR CONSIGNEE USE ONLY		Record Waste Description Inadequate		13. TOTAL WEIGHT OR VOLUME (Use appropriate units)		17. LSA/SCO CLASS		18. IDENTIFICATION NUMBER OF PACKAGE		19. CERTIFICATION		20. SIGNATURE	
[] Contamination or Leakage Detected		[] Unmarked Exposure Rate Detected		[] Labels, Markings, etc. Inadequate		[] Container Integrity Inadequate		[] Other		[X] No Violations Detected on this Shipment		Paul Nuygen	
BIO-12-17		Modified Date: 12/04/2017 16:55		Form 540 (10-98)		Form 540 (10-98)		Form 540 (10-98)		Form 540 (10-98)		Form 540 (10-98)	



P.O. Box 817 – Kingston, TN 37763 – (865) 220-8501

January 29, 2018

ROGER WAGNER

GLOBAL METALLURGICAL, INC.
RTE 60 EAST
ALLOY, WV 25002

Dear Roger,

As required by 10 CFR Part 20 (Appendix G), this letter is notification that Bionomics, Inc. has received the shipment recently picked up at your facility on **January 24, 2018**.

Attached you will find a copy of your NRC Form 540, the only change from the original is in Item No.9 "signature" which identifies that Bionomics, Inc. is acknowledging receipt of waste from your facility.

Please keep this with your original, as well as future disposal certifications.

If you have any questions please feel free to contact me at (865) 220-8501.

~~Sincerely,~~

A handwritten signature in black ink that reads 'Paul Nipper'.

Paul Nipper
QA Manager

Cc: File BIO-01-18

Estimated burden per response to comply with this information collection request as follows: This uniform instrument is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Respondents representing various entities in the hazardous and radioactive waste business are required to submit responses to this form to the Department of Energy, Office of Information and Regulatory Affairs, NEPC-10782, at HQ-1640-134, Office of Management and Budget, Washington, DC 20503-0097, or by Internet e-mail to hq-1640-134@ic.doe.gov, or by facsimile to the above address. The instructions to this form may be found at the following URL: <http://www.nrc.gov/REGISTRATION/lowlevel.html>. A person is not required to respond if the collection does not affect him/her or if it imposes an unreasonable burden. If you have comments regarding this information collection request, please write them on this form and return them to the Department of Energy, Office of Information and Regulatory Affairs, NEPC-10782, at HQ-1640-134, Office of Management and Budget, Washington, DC 20503-0097.

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		Biomonics, Inc. Biomonics, Inc. for Global Metallurgical, Inc. Rte 60 East Aloft, WV 25002		SHIPPER - NAME AND FACILITY		SHIPMENT ID NUMBER 0122-2018C/VN/P/ACH		7. FORM 540 AND 540A FORM 541 AND 541A FORM 542 AND 542A ADDITIONAL INFORMATION		8. MANIFEST NUMBER (Use this number on all continuation pages)	
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (800) 424-9300		2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [] YES [X] NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST		4. DOES EPA REGULATED WASTE REQUIRE MANIFEST ACCOMPANY THIS SHIPMENT? N "Yes" Provide Manifest Number		5. CARRIER - Name and Address Biomonics, Inc. 1550 Bear Creek Road Oak Ridge, TN 37830		6. CONSIGNEE - Name and Facility Address Biomonics, Inc. Operated by Biomonics, Inc. 1550 Bear Creek Road Oak Ridge, TN 37830 (800) 220-8501	
ORGANIZATION CHEMTRAC/CNNR2541		EPA MANIFEST NUMBER 2		N/A		SHIPMENT ID NUMBER 0118GM		SHIPMENT ID NUMBER 0118GM		CONTACT John McCormick	
1. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIOISOTOPE		16. TOTAL PACKAGE ACTIVITY MBq	
UN2215, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7 SEALED SOURCES 1 - 55 GAL METAL DRUM		Yellow II		0.2		SOLIDOXIDES		GS-137		3.1143E+04 (8 4170E-02)	
UN2216, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7 SEALED SOURCES 1 - 55 GAL METAL DRUM		Yellow II		0.2		SOLIDOXIDES		GS-137		3.1143E+04 (8 4170E-02)	
17. TOTAL WEIGHT OR VOLUME (Use appropriate unit)		18. CLASS		19. IDENTIFICATION NUMBER OF PACKAGE		20. GROSS WEIGHT OR VOLUME (Use appropriate unit)		21. GROSS WEIGHT OR VOLUME (Use appropriate unit)		22. GROSS WEIGHT OR VOLUME (Use appropriate unit)	
840.00 lb		NA		GMI-02 (19-000041)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-03 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-04 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-05 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-06 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-07 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-08 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-09 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-10 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-11 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-12 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-13 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-14 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-15 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-16 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-17 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-18 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-19 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-20 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-21 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-22 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-23 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-24 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-25 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-26 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-27 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-28 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-29 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-30 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-31 (18-000098)		840.00 lb		840.00 lb		840.00 lb	
840.00 lb		NA		GMI-32 (18-000098)							

Accession Number: 01247018 11-21

2. **பெரிய கட்டிடம்** - கட்டிடம் கட்டி, அதில்
 3. **பெரிய கட்டிடம்** - கட்டிடம் கட்டி, அதில்
 4. **பெரிய கட்டிடம்** - கட்டிடம் கட்டி, அதில்

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

(866-411-1495) 1-800-848-2222² - Indicates Cross Contamination

Printed under the authority of the Department of Energy, to comply with the information collection requirements of 10 CFR 20.1206, the Uniform Low-Level Radioactive Waste Manifest is required by NRC for all low-level radioactive waste disposal. The manifest is required for all low-level radioactive waste disposal, except for waste that is disposed of in a licensed low-level waste disposal facility. The manifest is required for all low-level radioactive waste disposal, except for waste that is disposed of in a licensed low-level waste disposal facility. The manifest is required for all low-level radioactive waste disposal, except for waste that is disposed of in a licensed low-level waste disposal facility.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST									
CONTAINER AND WASTE DESCRIPTION									
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste									
Bionomics, Inc.									
FORM 561									
1. MANIFEST TOTALS									
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3. SPECIAL NUCLEAR MATERIAL (gross)									
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