



**NTI**  
NORTHERN  
TECHNOLOGIES, LLC

2301 East Rice Street  
Sioux Falls, SD 57103  
P: 605.339.3722 F: 605.332.5443  
www.NTIgeo.com

Unearthing confidence™

**Fax**

To:	<u>Michelle Simmons</u>	From:	<u>Mike Hudson: American Technical</u>
Fax:	<u>817-200-1263</u>	Pages:	<u>6</u>
Phone:	<u>817-200-1590</u>	Date:	<u>2/13/17</u>
Re:	<u>mail control 592907</u>	CC:	

Comments:

**PUBLIC**

- ☐ Immediate Release  
☒ Normal Release

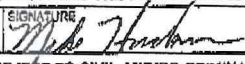
**NON-PUBLIC**

- ☐ A.3 Sensitive-Security Related  
☐ A.7 Sensitive Internal  
☐ Other: \_\_\_\_\_

Reviewer: MS Date: 2/15/17

# AMERICAN TECHNICAL SERVICES, INC.

2301 EAST RICE ST., SIOUX FALLS, SD 57103 • PHONE (605) 339-3722 • FAX (605) 332-5443

<b>NRC FORM 314</b> <small>(4-2008)</small> <small>10 CFR 20.2609(f); 40.420(f); 70.580(f); and 72.540(d)(5)(f)</small>		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMB: NO. 3160-0028</b>		<b>EXPIRES: 08/31/2010</b>	
<b>CERTIFICATE OF DISPOSITION OF MATERIALS</b>							
<b>LICENSEE NAME AND ADDRESS</b> American Technical Services, Inc. 2301 East Rice Street Sioux Falls, S.D. 57103				<b>LICENSE NUMBER</b> 40-27465-01		<b>DOCKET NUMBER</b> 030-33094	
				<b>LICENSE EXPIRATION DATE</b> Feb 29, 2024			
<b>A. LICENSE STATUS (Check the appropriate box)</b> <input type="checkbox"/> This license has expired. <input checked="" type="checkbox"/> This license has not yet expired; please terminate it.							
<b>B. DISPOSAL OF RADIOACTIVE MATERIAL</b> (Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments) The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:							
<input type="checkbox"/> 1. No radioactive materials have ever been procured or possessed by the licensee under this license.							
<input type="checkbox"/> 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:							
<input checked="" type="checkbox"/> a. Transfer of radioactive materials to the licensee listed below: <div style="text-align: right;">33-27581-02 (Northern Technologies)          6608 141st Avenue          Ramsey, Mn. 55303</div>							
<input type="checkbox"/> b. Disposal of radioactive materials:							
<input type="checkbox"/> 1. Directly by the licensee:							
<input type="checkbox"/> 2. By licensed disposal site:							
<input type="checkbox"/> 3. By waste contractor:							
<input type="checkbox"/> c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.							
<b>C. SURVEYS PERFORMED AND REPORTED</b>							
<input type="checkbox"/> 1. A radiation survey was conducted by the licensee. The survey confirms:							
<input type="checkbox"/> a. the absence of licensed radioactive materials							
<input type="checkbox"/> b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.							
<input type="checkbox"/> 2. A copy of the radiation survey results:							
<input type="checkbox"/> a. is attached; or <input type="checkbox"/> b. is not attached (Provide explanation); or <input type="checkbox"/> c. was forwarded to NRC on: _____ Date							
<input checked="" type="checkbox"/> 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and							
<input checked="" type="checkbox"/> a. The results of the latest leak test are attached; and/or <input type="checkbox"/> b. No leaking sources have ever been identified.							
The person to be contacted regarding the information provided on this form:							
<b>NAME</b> Mike Hudson		<b>TITLE</b> RSO		<b>TELEPHONE (Include Area Code)</b> (605) 339-3722		<b>E-MAIL ADDRESS</b> mhudson@ntg-90.com	
Mail all future correspondence regarding this license to: Northern Technologies, 2301 E Rice St., Sioux Falls, S.D. 57103							
<b>C. CERTIFYING OFFICIAL</b> I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT							
<b>PRINTED NAME AND TITLE</b> Mike Hudson RSO		<b>SIGNATURE</b> 		<b>DATE</b> 2/13/17			
<b>WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.</b>							

Form: 193A Rev 1, 19 Jun 2006



www.qaltek.com

Qal-Tek Associates

1107 Wonder Drive Ste 104  
Round Rock, TX 78681  
Ph: 512 407-9252  
Fax: 512 407-9831

3998 Commerce Circle  
Idaho Falls, ID 83401  
Ph: 208 523-5557  
Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. - Sioux Falls

Acct#: 1607

Ref#: W18538-080139

Street: 2301 E Rice St

City/State/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 28725

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017

## Test Instrument

Test Instrument BICRON : ELECTRA : 139

## Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

## Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		0	0	0	0	Pass

## Comments

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005  $\mu$ Ci



Form: 193A Rev 1, 19 Jun 2006



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Ph: 208 523-5557  
Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. - Sioux Falls

Acct#: 1607

Ref#: W18538-080140

Street: 2301 E Rice St

City/ST/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 25721

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017

### Test Instrument

Test Instrument	BICRON : ELECTRA : 139
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### Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

### Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		3	0	0.000005	0	Pass

### Comments

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005  $\mu$ Ci



Form: 193A Rev 1, 19 Jun 2006



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Idaho Falls, ID 83401  
Ph: 208 523-5557  
Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

**SEALED RADIOACTIVE SOURCE LEAK TEST REPORT**

Company: American Technical Services, Inc. - Sioux Falls

Acct#: 1607

Ref#: W18538-080141

Street: 2301 E Rice St

City/State/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 30304

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017**Test Instrument**

Test Instrument	BICRON : ELECTRA : 139
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**Test Instrument Info**

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

**Test Results**

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		0	0	0	0	Pass

**Comments**

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of  $<0.005 \mu$ Ci

Form: 193A Rev 1, 19 Jun 2006

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Qal-Tek Associates

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Fax: 512 407-98313998 Commerce Circle  
Idaho Falls, ID 83401  
Ph: 208 523-5557  
Fax: 208 524-8470557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495**SEALED RADIOACTIVE SOURCE LEAK TEST REPORT**

Company: American Technical Services, Inc. - Sioux Falls

Acct#: 1607

Ref#: W18538-080142

Street: 2301 E Rice St

City/St/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 31809

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017**Test Instrument**

Test Instrument	BICRON : ELECTRA : 139
-----------------	------------------------

**Test Instrument Info**

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

**Test Results**

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		1	1	0.000002	0.000002	Pass
Cs137		8 mCi		0	1	0	0.000002	Pass

**Comments**

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005  $\mu$ Ci



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[www.NTIgeo.com](http://www.NTIgeo.com)

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## Fax

To:	<u>Michelle Simmons</u>	From:	<u>Mike Hudson: American Technical</u>
Fax:	<u>817-200-1263</u>	Pages:	<u>13</u>
Phone:	<u>817-200-1590</u>	Date:	<u>2/13/17</u>
Re:	<u>mail control 592907</u>	CC:	

Comments:



# AMERICAN TECHNICAL SERVICES, INC.

2301 EAST RICE ST., SIOUX FALLS, SD 57103 • PHONE (605) 339-3722 • FAX (605) 332-5443

<b>NRC FORM 314</b> (4-2009) 10 CFR 30.350(i); 40.420(i); 70.380(i); and 72.540(i)(1)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMR: NO. 3150-0028</b>		<b>EXPIRES: 06/31/2010</b>	
<b>CERTIFICATE OF DISPOSITION OF MATERIALS</b>							
<b>LICENSEE NAME AND ADDRESS</b> American Technical Services, Inc. 2301 East Rice Street Sioux Falls, S.D. 57103				<b>LICENSE NUMBER</b> 40-27465-01		<b>DOCKET NUMBER</b> 030-33094	
				<b>LICENSE EXPIRATION DATE</b> Feb 29, 2024			
<b>A. LICENSE STATUS (Check the appropriate box)</b> <input type="checkbox"/> This license has expired. <input checked="" type="checkbox"/> This license has not yet expired; please terminate it.							
<b>B. DISPOSAL OF RADIOACTIVE MATERIAL</b> (Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments) The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:							
<input type="checkbox"/> 1. No radioactive materials have ever been procured or possessed by the licensee under this license.							
<input type="checkbox"/> 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:							
<input checked="" type="checkbox"/> a. Transfer of radioactive materials to the licensee listed below: 33-27581-02 (Northern Technologies) 10588 141 <sup>st</sup> Avenue Ramsey, Mn. 55303							
<input type="checkbox"/> b. Disposal of radioactive materials:							
<input type="checkbox"/> 1. Directly by the licensee:							
<input type="checkbox"/> 2. By licensed disposal site:							
<input type="checkbox"/> 3. By waste contractor:							
<input type="checkbox"/> c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.							
<b>C. SURVEYS PERFORMED AND REPORTED</b>							
<input type="checkbox"/> 1. A radiation survey was conducted by the licensee. The survey confirms:							
<input type="checkbox"/> a. the absence of licensed radioactive materials							
<input type="checkbox"/> b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.							
<input type="checkbox"/> 2. A copy of the radiation survey results:							
<input type="checkbox"/> a. is attached; or <input type="checkbox"/> b. is not attached (Provide explanation); or <input type="checkbox"/> c. was forwarded to NRC on: _____ Date							
<input checked="" type="checkbox"/> 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and							
<input checked="" type="checkbox"/> a. The results of the latest leak test are attached; and/or <input type="checkbox"/> b. No leaking sources have ever been identified.							
The person to be contacted regarding the information provided on this form:							
<b>NAME</b> Mike Hudson		<b>TITLE</b> RSO		<b>TELEPHONE (Include Area Code)</b> (605) 339-3722		<b>E-MAIL ADDRESS</b> mhudson@att.net	
MAIL ALL RETURN CORRESPONDENCE REGARDING THIS LICENSE TO: Northern Technologies, 2301 E Rice St., Sioux Falls, S.D. 57103							
<b>C. CERTIFYING OFFICIAL</b> I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT							
<b>PRINTED NAME AND TITLE</b> Mike Hudson RSO		<b>SIGNATURE</b> Mike Hudson		<b>DATE</b> 2/13/17			
<b>WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.</b>							

Form: 193A Rev 1, 19 Jun 2006



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Qal-Tek Associates

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3998 Commerce Circle  
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Ph: 208 523-5557  
Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. - Sioux Falls

Acc#: 1607

Ref#: W18538-080139

Street: 2301 E Rice St

City/ST/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 28725

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017

### Test Instrument

Test Instrument	BICRON : ELECTRA : 139
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### Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

### Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		0	0	0	0	Pass

### Comments

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005  $\mu$ Ci

Form: 193A Rev 1, 19 Jun 2006



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Qal-Tek Associates

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Fax: 512 407-9831

3998 Commerce Circle  
Idaho Falls, ID 83401  
Ph: 208 523-5557  
Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. - Sioux Falls

Acct#: 1607

Ref#: W18538-080140

Street: 2301 E Rice St

City/St/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 25721

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017

### Test Instrument

Test Instrument	BICRON : ELECTRA : 139
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### Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

### Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		3	0	0.000005	0	Pass

### Comments

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005  $\mu$ Ci



Form: 193A Rev 1, 19 Jun 2006



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Qal-Tek Associates

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Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. - Sioux Falls

Acct#: 1607

Ref#: W18538-080141

Street: 2301 E Rice St

City/St/Zip: Sioux Falls, SD 57103

Phone: 605-339-3722

Fax: 605-332-5443

Serial Number: 30304

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017

## Test Instrument

Test Instrument	BICRON : ELECTRA : 139
-----------------	------------------------

## Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

## Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		0	0	0	0	Pass

## Comments

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005  $\mu$ Ci

Form: 193A Rev 1, 19 Jun 2006

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Ph: 208 523-5557  
Fax: 208 524-8470

557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 304-5199  
Fax: 480 966-9495

**SEALED RADIOACTIVE SOURCE LEAK TEST REPORT**

Company: American Technical Services, Inc. - Sioux Falls  
Street: 2301 E Rice St  
City/St/Zip: Sioux Falls, SD 57103  
Phone: 605-339-3722

Acct#: 1607

Ref#: W18538-080142

Fax: 605-332-5443

Serial Number: **31809**

Mfg: Troxler

Model: 3430

Leak Test  
Date: 03-Dec-2016Leak Test  
Due Date: 03-Dec-2017**Test Instrument**

Test Instrument	BICRON : ELECTRA : 139
-----------------	------------------------

**Test Instrument Info**

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. Type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

**Test Results**

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net b/Y CPM	alpha $\mu$ Ci	b/Y $\mu$ Ci	Pass/Fail
Am241		40 mCi		1	1	0.000002	0.000002	Pass
Cs137		8 mCi		0	1	0	0.000002	Pass

**Comments**

Instrument Technician: Sam Burks

Date of Service: 03-Dec-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of  $<0.005 \mu$ Ci



Form 193A Rev 1, 18 Jun 2008


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 Qal-Tek Associates

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 Fax: 512 407-9831

 3998 Commerce Circle  
 Idaho Falls, ID 83401  
 Ph: 208 523-5557  
 Fax: 208 524-8470

 1557 East Juniper Ste 6  
 Mesa, AZ 85204  
 Ph: 480 304-5199  
 Fax: 480 906-9495

### SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

 Company: American Technical Services, Inc. Blackhawk  
 Street: 8105 Black Hawk Rd  
 City/State/Zip: Black Hawk, SD 57718-0558  
 Phone: 605-787-9303

Acct#: 1608

Ref#: W18371-079596

Fax: 605-787-9515

Serial Number: 22468

Mfg: Troxler

Model: 3440

Leak Test Date: 14-Nov-2016

Leak Test Due Date: 14-Nov-2017

#### Test Instrument

Test Instrument	BICRON ELECTRA 139
-----------------	--------------------

#### Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.06
beta efficiency	21.01
Data type	ZnS(Ag)
Last Cal Date	01-Aug-2016

#### Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net beta CPM	alpha $\mu$ Ci	beta $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	7	0	0.000014	Pass
Ce137		8 mCi		0	2	0	0.000004	Pass

#### Comments

Instrument Technician: Mark Swanson

Date of Service: 14-Nov-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limit of 0.005  $\mu$ Ci.



Form 103A Rev 1, 19 Jun 2006


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 557 East Juniper Ste 6  
 Mesa, AZ 85204  
 Ph: 480 304-5199  
 Fax: 480 966-9495

### SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

 Company: American Technical Services, Inc.-Blackhawk  
 Street: 8105 Black Hawk Rd  
 City/State/Zip: Black Hawk, SD 57718-0558  
 Phone: 605-787-9303

Acct#: 1608

Rpt#: W18371-079594

Fax: 605-787-9515

Serial Number: 25269

Mfg: Troxler

Model: 18430

Leak Test Date: 15-Nov-2016

Leak Test Due Date: 15-Nov-2017

#### Test Instrument

Test Instrument	EICRON ELECTRA-130
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#### Test Instrument Info

MDA	less than 0.005 $\mu$ Ci
alpha efficiency	28.36
beta efficiency	21.81
Det. type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

#### Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net beta CPM	alpha $\mu$ Ci	beta $\mu$ Ci	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		8 mCi		0	1	0	0.000002	Pass

#### Comments

Instrument Technician: Mark Swanson

Date of Service: 15-Nov-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotope detection limits. For this purpose the MDA is below the NRC regulatory limits of  $<0.005 \mu$ Ci.



Form: 183A Rev 1, 19 Jun 2006


**Qal-Tek**  
 Revolutionizing Radiation Safety in Your World

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 Qal-Tek Associates

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 Idaho Falls, ID 83401  
 Ph: 208 523-5557  
 Fax: 208 524-8470

 557 East Juniper Ste 6  
 Mesa, AZ 85204  
 Ph: 480 304-5199  
 Fax: 480 966-9495

### SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

 Company: American Technical Services, Inc.-Blackhawk  
 Street: 8106 Black Hawk Rd  
 City/Zip: Black Hawk, SD 57718-0658  
 Phone: 605-787-9303

Acct#: 1608

Form: W18371-079593

Fax: 605-787-9515

Serial Number: 26303

Mfg: Troxler

Model: 3430

Leak Test Date: 15-Nov-2016

Leak Test Due Date: 16-May-2017

#### Test Instrument

Test Instrument	BICKON-ELECTRA-139
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#### Test Instrument Info

MDA	less than 0.005 uCi
alpha efficiency	28.36
beta efficiency	21.81
Det. type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

#### Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net beta CPM	alpha uCi	beta uCi	Pass/Fail
Am241		40 mCi		0	0	0	0	Pass
Cs137		6 mCi		0	0	0	0	Pass

#### Comments

Instrument Technician: Mark Swanson

Date of Service: 15-Nov-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of <0.005 uCi.



Form 193A Rev 1, 19 Jun 2006



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557 East Juanita Ste 6  
Mesa, AZ 85204  
Ph: 480 944-5199  
Fax: 480 966-9495

## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. Blackhawk  
Street: 8105 Black Hawk Rd  
City/State: Black Hawk, SD 57718-0558  
Phone: 605-787-9303

Acct#: 1608

Ref#: W18371-079592

Fax: 605-787-9515

Serial Number: 32457  
Leak Test Date: 14-Nov-2016

Mfg: Troxler

Model: 3430

Leak Test Due Date: 14-Nov-2017

Test Instrument									
Test Instrument				BICRON ELECTRA 1139					
Test Instrument Info									
MDA				less than 0.005 $\mu$ Ci					
alpha efficiency				26.36					
beta efficiency				21.81					
Det. type				ZnS(Ag)					
Last Cal. Date				01-Aug-2016					
Test Results									
Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net $\beta$ CPM	Alpha $\mu$ Ci	beta $\mu$ Ci	Pass/Fail	
Am241	2	40 mCi				0	0	Pass	
Cs137	3	8 mCi				0	0	Pass	

## Comments

Instrument Technician: Mark Swanson  
Date of Service: 14-Nov-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of  $<0.005 \mu\text{Ci}$ .



Form: 193A Rev 1 19 Jun 2008



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Qal-Tek Associates

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Mesa, AZ 85204  
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## SEALED RADIOACTIVE SOURCE LEAK TEST REPORT

Company: American Technical Services, Inc. Blackhawk

Acct#: 1608

Ref#: W18371-079595

Street: 8105 Black Hawk Rd

City/State: Black Hawk, SD 57718-0568

Phone: 605-787-9303

Fax: 605-787-9515

Serial Number: 37412

Mr. Troxler

Model: 3430

Leak Test Date: 15-Nov-2016

Leak Test Due Date: 15-Nov-2017

## Test Instrument

Test Instrument: BICRON ELECTRA 139

## Test Instrument Info

MDA	less than 0.008 $\mu$ CI
Alpha efficiency	28.95
Beta efficiency	21.81
Det. type	ZnS(Ag)
Last Cal. Date	01-Aug-2016

## Test Results

Isotope	Source SN	Activity (mCi)	Assay Date	net alpha CPM	net beta CPM	alpha $\mu$ CI	beta $\mu$ CI	Pass/Fail
Am241		40 mCi		1	2	0.000002	0.000004	Pass
Cs137		8 mCi		0	2	0.000000	0.000004	Pass

## Comments

Instrument Technician: Mark Swanson

Date of Service: 15-Nov-2016

Qal-Tek Associates certifies that all leak test measurements are performed in accordance with NRC licensee requirements for isotopic detection limits. For this purpose the MDA is below the NRC regulatory limits of  $\leq 0.005 \mu$ CI.