

**Troxler Electronic Laboratories, Inc.**

3008 Cornwallis Rd., P.O. Box 12057
Research Triangle Park, NC 27709
Tel: (877) 876-9537 Fax: (866) 391-2759
License: NC 032-0182-1

NASIR KHAN
HAKS MATERIAL TESTING LAB
47 HUDSON STREET
OSSINING, NY 10562

Cust ID: 12437

LEAK TEST CERTIFICATE

DEVICE:

Model: 3450

Serial No: 1040

SEALED SOURCES:

Serial No.	Measure Date	Nuclide	GBq	mCi
78-2220	12/15/2005	Am-241:Be	1.48	40
77-4569	12/07/2005	Cs-137	0.296	8

LEAK TEST ANALYSIS:

Sample collected on: 12/11/2020

Sample analyzed on: 01/06/2021 12:11:15 PM

Position: 45

Analyzed by: TH

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.23E+01	1.96E+01
Background measurement (cpm)	0	26
Sample measurement (cpm)	0	30
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	4.2E-01	1.3E+00

This certifies that the leak test results are:



Less than 185 Bq (0.005 uCi)



Greater than 185 Bq (0.005 uCi)

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DEVICE:**Model:** 3440**Serial No:** 16783**SEALED SOURCES:**

Serial No.	Measure Date	Nuclide	GBq	mCi
47-12207	08/11/1988	Am-241:Be	1.48	40
50-5918	09/19/1988	Cs-137	0.296	8

LEAK TEST ANALYSIS:**Sample collected on:** 12/11/2020**Sample analyzed on:** 01/07/2021 11:33:15 A **Position:** 20**Analyzed by:** TH

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.23E+01	1.96E+01
Background measurement (cpm)	0	26
Sample measurement (cpm)	2	31
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	4.2E-01	1.3E+00

This certifies that the leak test results are:☒ **Less than 185 Bq (0.005 uCi)**☐ **Greater than 185 Bq (0.005 uCi)**

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INSTROTEK® COMPANIES



INSTROTEK • CPN • HMA • RAINHART

InstroTek Inc.
1 Triangle Drive
P.O. Box 13944
Research Triangle Park, NC 27709
(919) 875-8371 Fax: (919) 875-8328

PAUL G. SOUSA
ATANE(DESIGN AND CONSTRUCTION CONSULTANT)
56 Roland street, suite 202
Boston, MA 02129

Phone: 617-778-7300

LEAK TEST CERTIFICATE InstroTek License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.


Gauge Model: 3411

Date Swabbed: 12/8/2020

Gauge Serial Number: 12700

Source Serial Number	Reading in MicroCuries
40CI47007	0.000000
8-2-30-1069	0.000250

Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by: 
Customer Signature: _____

Print Date: 12/9/2020
Date: _____

CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.

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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Gauge Model: 3440
Gauge Serial Number: 34921

Date Swabbed: 12/8/2020

Source Serial Number	Reading in MicroCuries
78-194	0.000000
77-1990	0.000275

Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by: 
Customer Signature: _____

Print Date: 12/9/2020
Date: _____

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InstroTek, Inc.
1 Triangle Drive, PO Box 13944
Research Triangle Park, NC 27709
(919)875-8371 Fax (919)875-8328

8/28/2020
Test Number: 1

Paul Sousa
Atane Consulting
56 Roland St.
Suite 202
Boston, MA 02129

Phone: (617)778-7300
Fax: (617)268-7831

LEAK TEST CERTIFICATE
NC Materials License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Gauge Model: 3440
Gauge S/N: 34924

Test Date: 8/26/2020

Source (Model/Serial#)	Reading in microCuries
78-198	0.00019
77-1994	0.00000

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source.° The source(s) tested above may remain in use.

Reviewed by: Daniela Boon Date: 8-28-2020

Customer Signature: _____ Date: _____

°CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137.

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Gauge Model: 3440
Gauge S/N: 23160

Test Date: 8/26/2020

Source (Model/Serial#)	Reading in microCuries
47-18987	0.00025
75-4992	0.00000

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source.^o The source(s) tested above may remain in use.

Reviewed by: Waniela Lyson Date: 8-28-2020

Customer Signature: _____ Date: _____

^oCPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137.

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Gauge Model: 3411
Gauge S/N: 13606

Test Date: 8/26/2020

Source (Model/Serial#)	Reading in microCuries
47-8921	0.00022
50-2366	0.00000

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source.° The source(s) tested above may remain in use.

Reviewed by: Walter Tyson Date: 8-28-2020

Customer Signature: _____ Date: _____

°CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137.