

**From:** [Bradburn, Curtis C.](#)  
**To:** [Tran, Frank](#)  
**Cc:** [Maier, Adam](#)  
**Subject:** [External\_Sender] RE: RE: Request for additional information for NRC License No. 13-26408-01  
**Date:** Monday, November 29, 2021 12:33:30 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[Leak Test 3401 16903.pdf](#)  
[Leak Test 340118616 15995.pdf](#)  
[Leak Test 3401 05379.pdf](#)

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Frank,

See the attached for the remaining leak tests.

Let me know if you have any questions.

Thank you,

**Curtis C. Bradburn**  
**Laboratory Manager (MAT & Private GEO) | RSO**  
**Terracon Consultants, Inc.**  
7770 W. New York Street | Indianapolis, IN 46214-2988  
Off (317) 273-1690 | D (317) 746-7893 | F (317) 273-2250  
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**From:** Tran, Frank <Frank.Tran@nrc.gov>  
**Sent:** Thursday, November 18, 2021 1:45 PM  
**To:** Bradburn, Curtis C. <ccbradburn@earthengr.com>  
**Subject:** RE: RE: Request for additional information for NRC License No. 13-26408-01

Dear Mr. Bradburn:

This is to confirm we have received a part of your response (letter dated November 16, 2021). We will wait for the leak test results for the remaining three gauges.

Best regards,

Frank Tran

---

**From:** Bradburn, Curtis C. <[ccbradburn@earthengr.com](mailto:ccbradburn@earthengr.com)>  
**Sent:** Thursday, November 18, 2021 9:12 AM  
**To:** Tran, Frank <[Frank.Tran@nrc.gov](mailto:Frank.Tran@nrc.gov)>  
**Cc:** Maier, Adam <[Adam.Maier@terracon.com](mailto:Adam.Maier@terracon.com)>; Olson, Rick D <[Rick.Olson@terracon.com](mailto:Rick.Olson@terracon.com)>; Stitt Jr., Bob <[Bob.Stitt@terracon.com](mailto:Bob.Stitt@terracon.com)>; Moir, Michael T <[Michael.Moir@terracon.com](mailto:Michael.Moir@terracon.com)>  
**Subject:** [External\_Sender] RE: Request for additional information for NRC License No. 13-26408-01

Frank,

Please see the attached requested documents. Serial numbers: 16903, 15995, and 05379 are at the facility currently being leak tested; once they are in we will forward them up to you.

Thank you,

**Curtis C. Bradburn**  
**Laboratory Manager (MAT & Private GEO) | RSO**  
**Terracon Consultants, Inc.**  
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The logo for Terracon, featuring the word "Terracon" in a bold, dark red, sans-serif font. The "T" is stylized with a vertical bar on its left side.



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**From:** Tran, Frank <[Frank.Tran@nrc.gov](mailto:Frank.Tran@nrc.gov)>

**Sent:** Friday, November 5, 2021 3:31 PM

**To:** Olson, Rick D <[Rick.Olson@terracon.com](mailto:Rick.Olson@terracon.com)>

**Subject:** Request for additional information for NRC License No. 13-26408-01

Dear Mr. Olson:

This refers to the license termination application for Earth Exploration, Inc. - A Terracon Company, NRC License No. 13-26408-01. We reviewed the application and will need the following.

1. The last leak test records for the Troxler gauges with the following serial numbers: 23347, 29621, 14747, 21832 (out of service), 05379 (out of service), 16903 (out of service), and 15995 (out of service).
2. A confirmation that there is no history of leaking sealed sources at the facilities authorized under the license.

To continue the review of your application, we request that you submit your response under a dated and signed cover letter by December 6, 2021. In the cover letter, please refer the license number, docket number and Mail Control No. 629027. We will assume that you do

not wish to further pursue this licensing action if we do not receive a reply within the specified timeframe noted above.

If you have questions, require additional time to respond, or require clarification on any of the information stated above, please contact me at 630-829-9623 or reply to this email.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this correspondence will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <https://www.nrc.gov/reading-rm/adams.html>.

Best regards,

*Frank Tran*

Health Physicist/License Reviewer  
NRC Region III/Division of Nuclear Materials Safety  
Phone: 630-829-9623  
Fax: 630-515-1078  
Email: [Frank.Tran@nrc.gov](mailto:Frank.Tran@nrc.gov)



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1 Triangle Drive  
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Bob Stit  
Terracon (Niles)  
2204 Yankee St  
Niles, MI 49120

Phone: 269.262.4320

## 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.

Make: Troxler  
Model: 340118616  
Serial Number: 15995  
Date Swabbed: 11/24/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-11403	0
Cs-137	50-5019	0.000179

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: 11/29/2021  
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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Phone: 269.262.4320

## 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.

Make: Troxler  
Model: 3401  
Serial Number: 16903

Date Swabbed: 11/24/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-12326	0.000003
Cs-137	50-6071	0.000192

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: 11/29/2021  
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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## 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.

Make: Troxler  
Model: 3401  
Serial Number: 05379

Date Swabbed: 11/24/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	CAA-1497	0
Cs-137	CC-2431	0.000218

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: 11/29/2021  
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.