

McKavanagh Engineering Services Pty Ltd

ABN: 27 081 830 579

9 September 2022

Wipe Test Report

| Prepared for: Huracan Pty Ltd Address: PO Box 1070, Roma QLD 4455 | | | | | | | |
|--|---|--|------------------|------------------|--------------------|---|--|
| Contact: Jon Hollingworth | | n Count Ti | me: 360 9 | Seconds | | Instrument: LUDLUM 3000 SN 25019721 Probe: 44-9 SN PR388737 Cal Due:15/01/2023 | |
| Wipe ID | Source | Gross Count | Nett count | Activity * Bq | Detection Limit | Source Serial No. | |
| 1 | Cs ¹³⁷ | 234 | 7 | 0.4 | 2.8 | G0090-18 | |
| Background Counts: | 227 | | | | | | |
| Location: | Office 40 Burns Street Fernvale Qld 4306 | | | | | | |
| Time/Date: | 09/09/2022 9.38am | | | | | | |
| Notes: | * Bq. Activity limit calculated for alpha or beta, depending on source. | | | | | | |
| | A nomi | A nominal 0.1 Bq used for negative nett counts | | | | | |
| Activity Limit: | Estimate of total activity in Bq; Nett cts/(count time*ct efficiency*wipe efficiency) | | | | | | |
| Activity Limit: = | Nett cts/(\$E\$2*0.481*0.1) (RED if >>detection limit) | | | | | | |
| Wipe efficiency: | 0.1 For Radwipes moistened with tap water (assumption) | | | | | | |
| Detection Limit: | in Bq. 2 sigma limits used for background + gross count, converted to activity | | | | | | |
| Comment: | As wipes are within the statistical limits of background, they are clean | | | | | | |

Comments:

- 1. This test was conducted in compliance with ISO9978:1992, the activity detected does not exceed 200Bq on the sample as tested, so the source is considered leak tight. The procedures used in this test are compliant with this Standard.
- 2. Contamination removal efficiency when wipe testing is highly dependent on technique, wipe media, and test surface. Removal efficiency is typically 10-20%. 10% has been used here. If activity is found to be present, even below the limiting value of 200Bq, these factors should be considered when assessing the integrity of the source encapsulation.

Head Office

Telephone: 07 5427 0126

40 Burns Street Fernvale Qld 4306

Postal Address: PO Box 7 Fernvale Qld 4306

Email: office@mckeng.com.au

Mackay Office

Telephone: 0439 622 466

Unit B07 Harbour City Central, Harbour Road Mackay Qld 4740

Postal Address: PO Box 8015 Mount Pleasant Qld 4740

Email: mackay@mckeng.com.au