Statement of Results (Impact Sound Insulation Test)

CSIRO Test: INR183-2 Commissioned by: Golden Field Corporation Pty Ltd

Construction (from top down):

<u>Results</u> $L_{n,w}(C_I) = 60(-1)$ Normalized

Impact SPL (dB)

Floor

Bare F

58.5

61.1

63.4

66.5

67.1

68.5

70.1

70.0

70.6

71.3

71.3

72.1

71.9

71.7

71.3

70.9

69.7

67.5

-

29

78

-12

66

With Floor Covering

57.3

59.3

62.2

64.2

65.6

66.6

67.1

65.1

63.4

60.5

55.1

51.8

47.5

41.5

36.4

30.6

24.9

20.2

-

_

50

60

-1

59

Freq

(Hz)

100

125

160

200

250

315

400

500 630

800

1000

1250

1600

2000

2500

3150

4000

5000

 ΔL_{w} ΔL_{lin}

IIC

 $L_{\underline{n},w}$

C

L_{n,w}

 $+ C_1$

· · ·	,	
Timber Laminate flooring, 12 mm thick	Golden Field GE2-005 "Rose Gum" 12 mm timber laminate flooring with interlocking edge profile. Plank size: 12.3 mm thick x 1800 x 143 mm. Area mass: approx 10.8 kg/m ² .	
• GREENEARTH EVA Acoustic underlay, 3 mm thick	3 mm neoprene underlay with 60 micron vapour barrier Supplied in 20 m ² rolls, 1100 mm wide, with pre-applied adhesive tape and 8 cm vapour barrier overlap. Area mass: approx 0.36 kg/m ² .	
• 150 mm Reinforced Concrete Slab	3.68 x 3.22 m reinforced concrete test slab, 150 mm thick, installed in a purpose-designed opening between two acoustic reverberation chambers; the surrounding concrete being 305 mm thick. Area mass: approx 360 kg/m ² .	
Ceiling: None	The underside of the concrete slab formed the top surface of the receiving chamber.	and the second

the receiving chamber.

Test Conditions

• Date of measurement: 9 April 2013 Improvement ΔL (dB) Barometric pressure: 1025 hPa • Source chamber: 19 ℃, 68 % RH • Receiving chamber: 19 °C, 66 % RH Impact Sound Data for the concrete test-slab with the 1.2 Floor Covering described above. 1.8 80 1.2 Normalised Impact Sound Levels (L_n) and Delta-L (ΔL) Values, dB 2.3 70 1.5 1.9 3.0 60 4.9 7.2 50 10.8 16.2 Ln Values of Specimen Floor system 40 20.3 Delta-L Values of Floor Covering 24.4 - Ln Valuesof Bare Slab 30.2 ISO 140.8 Reference Slab 30 34.9 Ln.w60 Reference Line 40.3 20 44.8 47.3 16 10 6 -0 -100 200 400 800 1600 3150 -Frequency, Hz (centre frequency of 1/3-octave bands) -

Note: ≥ and ≤ indicate levels, if any, where measurability was limited by background level.

These are the results of testing carried out at CSIRO Acoustic Laboratories, 37 Graham Rd, Highett, Australia 3190 in accordance AS ISO 140.6-2006 and AS ISO 140.8-2006. Calculations have been carried out in accordance with AS ISO 717.2-2004 and ASTM E989-89. This appendix may serve as a statement of results for the particular floor materials described; full details are contained in CSIRO Report INR183/R1.

