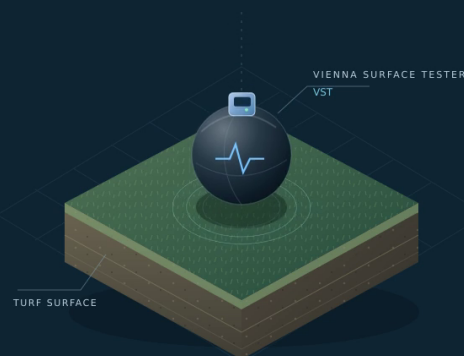


Know your ground.

Surface testing for racing and eventing

Independent field measurements, mapping and applied research. Clearer information for ground preparation, monitoring and discussion.



Objective testing. Useful reporting.

A single assessment, a repeated monitoring programme or a bespoke research brief. Coverage and outputs are agreed around your venue and questions.

01 / RACING

Racecourse monitoring

Measurements across the course, repeated fixtures and different running lines. Support going discussions and maintenance planning.

02 / EVENTING

Venue assessment

Cross-country ground assessed across fields and sectors, with rider feedback where part of the research brief.

03 / RESEARCH

Applied fieldwork

GPS-linked data collection, analysis and reporting for UK and international equine surface projects.

MEASURE

Objective field testing

MAP

See spatial variation

MONITOR

Follow changes over time

INTERPRET

Practical reporting

INTRODUCTORY ASSESSMENTS

From £199 / visit

Regional monitoring and bespoke days are quoted to the brief. Scope, travel, reporting and applicable tax are confirmed in the quotation.

A repeatable impact. A measured response.

The Vienna Surface Tester (VST) is a **6.15 kg, 20.4 cm instrumented sphere**. Repeated drops examine surface response under different impact conditions.

The electronics record impact velocity, firmness, stiffness, penetration and energy restitution. Separate soil-moisture readings add context and support the relevant cushioning model.



A sampling plan suited to the venue.

The original brochure describes approximately **200 m spacing** and **seven drop heights**. Locations and repeats can be customised to the venue, course features and approved project protocol.

FIRMNESS / g

Peak acceleration at impact. Compare upper and lower response patterns.

CUSHIONING / kN

A peak-force-based estimate using VST and moisture data in the relevant model.

DEPTH AND STIFFNESS

Penetration and spring-rate response describe deformation and resistance.

ENERGY RETURN / %

Restitution or rebound response interpreted within the testing protocol.

Research foundations

The 2023-2024 Ground and Going study was led by Nottingham Trent University and the University of Central Lancashire, managed by the Horse Welfare Board and funded by the Racing Foundation.

Selected references: Eventing ground protocol (Biomechanics, 2023); speed-going proof-of-concept study (JEVS, 2024); Ground and Going Study Report (September 2024). Full links and context are on the Research page.

VST development: Professor Christian Peham and Dr Johannes Peter Schramel, University of Veterinary Medicine Vienna.

Clear reports. Useful context.

Individual locations, route summaries and course variation help show what an average includes. This table re-presents the example from the original brochure.

Section	Top firmness (g)	Cushioning (kN)	Moisture (%)
1	27.3	8.25	51.0
2	25.8	7.49	54.5
3	27.4	7.18	53.5
4	27.3	7.81	55.5
5	27.7	7.80	58.5
6	28.2	7.55	56.5
7	25.8	7.03	58.5
8	30.7	8.38	60.0
Average	27.5	7.69	56.0
Variation (%)	6.51%	7.70%	5.87%
Chase average	28.1	7.64	55.3
Hurdle average	26.9	7.73	56.8

The readings and summaries are reproduced from the brochure. They are example data, not live course conditions. Interpretation bands are explained with each dataset rather than treated as universal going thresholds.

Delivery options

PDF

Maps, summaries and comments

XLSX / CSV

Compiled and raw data

KML

Google Earth locations

PNG / SVG

Graphics for team discussion

Discuss your course, venue or research project.

info@groundlytics.com | +44 (0)7465 623116