

# SCORIA DRAINAGE AGGREGATE TEST REPORT



**Project :** Taupo Landfill Extension  
**Location :** Taupo Landfill  
**Client :** Hartley Seay & Sons Ltd  
**Contractor :** Hartley Seay & Sons Ltd  
**Sampled by :** Graham Hartley  
**Date sampled :** 17/12/2004  
**Sampling method :** Not Stated  
**Sample description :** Scoria  
**Sample condition :** Wet  
**Source :** Taupo Landfill

**Project No :** 289536  
**Lab Ref No :** 04/419  
**Client Ref No :**

| Particle Size Distribution |                    |        |
|----------------------------|--------------------|--------|
| Sieve Size (mm)            | Percentage Passing |        |
|                            | Sample             | Limits |
| 63.0                       | -                  |        |
| 37.5                       | 100                |        |
| 19.0                       | 81                 |        |
| 9.5                        | 18                 |        |
| 4.75                       | 2                  |        |
| 2.36                       | 2                  |        |
| 1.18                       | 2                  |        |
| 0.600                      | 2                  |        |
| 0.300                      | 0                  |        |
| 0.150                      | 0                  |        |
| 0.075                      | 0                  |        |

Result obtained from an oven dried test sample.

| Grading Shape Control |                   |         |
|-----------------------|-------------------|---------|
| Fraction (mm)         | % Within Fraction |         |
|                       | Sample            | Limits  |
| 19.0 - 4.75           | 79                | 28 - 48 |
| 9.5 - 2.36            | 16                | 14 - 34 |
| 4.75 - 1.18           | 0                 | 7 - 27  |
| 2.36 - 0.600          | 0                 | 6 - 22  |
| 1.18 - 0.300          | 2                 | 5 - 19  |
| 0.600 - 0.150         | 2                 | 2 - 14  |

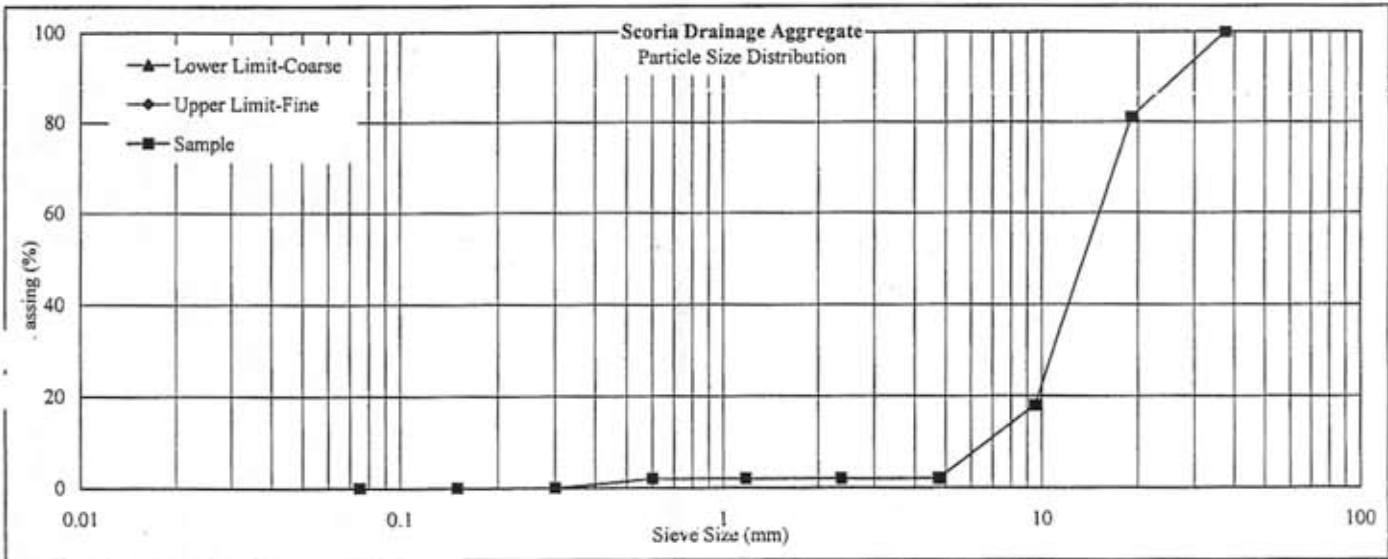
| Crushing Resistance  |            |    |
|----------------------|------------|----|
| % Fines @ Spec. Load | -          | %  |
| Specification        | <10        | %  |
| Crushing Resistance  | >130       | kN |
| Nom Aggregate Size   | 13.2 - 9.5 | mm |
| Specified Load       | 130        | kN |

| Broken Faces Content of Aggregate |                      |             |
|-----------------------------------|----------------------|-------------|
| Fraction (mm)                     | Percentage by Weight |             |
|                                   | Sample               | Lower Limit |
| 37.5 - 19.0                       | -                    | 70          |
| 19.0 - 9.5                        | -                    | 70          |
| 9.5 - 4.75                        | -                    | 70          |

| Plasticity Index |     |
|------------------|-----|
| Sample PI        | -   |
| Specification    | ≤ 5 |

| Clay Index    |     |
|---------------|-----|
| Sample CI     | -   |
| Specification | ≤ 3 |

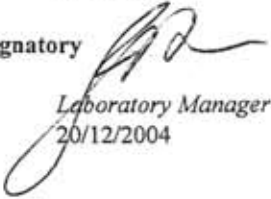
| Sand Equivalent (Air Dried, Mechanical Shaking) |      |
|---|------|
| Sample SE                                       | -    |
| Specified                                       | ≥ 40 |



| Test Methods               |                              |                                   |                             |
|----------------------------|------------------------------|-----------------------------------|-----------------------------|
| Plasticity Index           | NZS 4407 : 1991 : Test 3.4   | Crushing Resistance               | NZS 4407 : 1991 : Test 3.10 |
| Sand Equivalent            | NZS 4407 : 1991 : Test 3.6   | Broken Faces Content of Aggregate | NZS 4407 : 1991 : Test 3.14 |
| Particle Size Distribution | NZS 4407 : 1991 : Test 3.8.2 | Clay Index                        | NZS 4407 : 1991 : Test 3.5  |

**Date tested :** 20/12/2004  
**Date reported :** 20/12/2004

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**IANZ Approved Signatory**  
  
**Designation :** Laboratory Manager  
**Date :** 20/12/2004

