

Wednesday, 25 November 2015

Kaiti Beach Road
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Attn: Martin Bayley

TRACE RESIN ACID ANALYSIS:

Resin Acids (incl. DHA) analysis for Marty Bayley (Eastland Port Ltd) – November 2015.

CLIENT'S ORDER NUMBER: AA 1146 EPL Compliance Programme - Eastland Port

WORK PERFORMED BY: Murray Robinson and Suzanne Gallagher

WORK CHECKED BY: Kim McGrouther

APPROVED BY:  (SIGN)

DATE OF ISSUE: 25 November 2015

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DATE SAMPLES RECEIVED 13.11.2015

SAMPLE DESCRIPTION Five samples in 1L glass bottles (450°C muffled Scion sample bottles we sent over) – samples sent by James Isaac (Logic Forest Solutions Ltd).

SAMPLE IDENTIFICATION ULY SW Site 1
ULY SW Site 2
ULY SW Site 3
ULY SW Site 4
ULY SW Site 5

SAMPLING PROCEDURE

This report relates only to the items tested as received and therefore does not necessarily represent the sample from which it was taken.

DATE OF TESTING 16.11.2015

METHODS

In-house method, involving unfiltered pH9 liquid/liquid extraction with dichloromethane (DCM), followed by gas chromatography - mass spectrometry (GC/MS) analysis.

RESULTS:**RESIN ACIDS ($\mu\text{g/L}$)**

Sample name	ULY SW Site 1	ULY SW Site 2	ULY SW Site 3	ULY SW Site 4	ULY SW Site 5
Pimaric acid	414.9	373.5	2.9	n.d.	n.d.
Sandaracopimaric acid	62.0	63.8	n.d.	n.d.	n.d.
Isopimaric acid	252.8	238.7	n.d.	n.d.	n.d.
Palustric acid	19.6	39.2	n.d.	n.d.	n.d.
Levopimaric Acid	6.1	15.3	n.d.	n.d.	n.d.
Dehydroabietic acid	2,589.9	2,608.7	3.0	n.d.	16.6
Abietic acid	400.0	460.3	n.d.	n.d.	n.d.
Neoabietic acid	17.9	41.7	n.d.	n.d.	n.d.
Pimarenic acid	n.d.	n.d.	n.d.	n.d.	n.d.
Sandaracopimarenic acid	n.d.	n.d.	n.d.	n.d.	n.d.
Isopimarenic acid	n.d.	n.d.	n.d.	n.d.	n.d.
13-Abietenic acid	n.d.	n.d.	n.d.	n.d.	n.d.
Pimaranic acid	n.d.	n.d.	n.d.	n.d.	n.d.
Isopimaranic acid	n.d.	n.d.	n.d.	n.d.	n.d.
Abietanic acid	n.d.	n.d.	n.d.	n.d.	n.d.
Seco-1-dehydroabietic acid	31.2	35.7	n.d.	n.d.	n.d.
Seco-2-dehydroabietic acid	25.5	32.2	n.d.	n.d.	n.d.
12-Chlorodehydroabietic acid	n.d.	n.d.	n.d.	n.d.	n.d.
14-Chlorodehydroabietic acid	n.d.	n.d.	n.d.	n.d.	n.d.
12,14-Dichlorodehydroabietic	n.d.	n.d.	n.d.	n.d.	n.d.
7-Oxodehydroabietic acid	71.0	99.2	n.d.	n.d.	n.d.
Total Resin Acids	3,890.9	4,008.3	5.9	0.0	16.6

n.d. = not detected, method detection limit is 0.1 $\mu\text{g/L}$

All results presented are from duplicate sample analysis and concentrations are in $\mu\text{g/L}$. Compounds are quantified if they have a response 2.5 times higher than the average blank.

