



**CHEMTEST**  
LABORATORIES LTD

# GUIDELINE VALUES FOR WATER ANALYSES

TAKEN FROM :

" Drinking Water Standards For New Zealand 1995 "  
tables 13.2 " MAV's for Inorganic Determinands of  
Health Significance " and 13.6 " Guideline Values for  
Aesthetic Determinands "

TEST	UNIT	CRITERIA
pH		6.5 - 8.5
Total Hardness (as Ca CO <sub>3</sub> )	mg/l	200
Chloride	mg/l	250
Sulphate	mg/L	250
Nitrate Nitrogen	mg/L	50
Sodium	mg/L	200
Total Iron	mg/l	0.2
Total Manganese	mg/l	0.5
Zinc	mg/l	3.0
Copper	mg/l	1.0
Boron	mg/l	0.3

The above values are intended to assist with the interpretation of Laboratory Analyses of water for human consumption . Should you be uncertain of the meaning of your results after studying this table please call the Laboratory for help .

29 June 2000

Elk Roofing  
64 Kath Hopper Drive  
Orewa Beach  
NORTH AUCKLAND

Attention Mark Probett

Dear Sir

**Analysis of Roof Run-off Water from Asphalt Shingle Roofs**

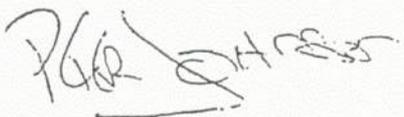
We write to confirm that the water testing conducted on the three water samples collected from different asphalt shingle roofs indicated that the values recorded were within the 1995 New Zealand Drinking Water Standards for all the parameters tested, except for pH.

The pH of the water tested ranged from 5.58 through to 5.94, although this is below the drinking water standard of pH 6.5, we believe the suppressed pH is due to carbondioxide dissolving in to the water as it is falling through the atmosphere. This suppressed pH is not believed to be a significant problem as it is coupled with very low alkalinity and low levels of total dissolved solids.

It is relevant to note that it is recommend that all roof water collected, irrespective of the roofing material, is treated for airborne contaminants and protozoan. Furthermore, it is recommended that regular maintenance and cleaning is performed on guttering and downpipe systems to prevent the build up of organic material.

We trust you find the above in order and if we can be of further assistance, please do not hesitate the undersigned.

Yours faithfully  
Harrison Grierson Consultants Limited



Dr Peter Johnson  
Associate

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April 29, 2002

Mark Probett  
Greentree NZ LTD  
64 Kath Hopper Drive  
Orewa Beach  
North Auckland  
New Zealand

Dear Mark,

Elk has decided to begin including the Proposition 65 Warning Label on all shingle products sold within the State of California. This change is not as a result of any changes in the products we sell. We do not believe that these products now or have ever been hazardous to the roofer, distributor, or homeowner. Rather, this change reflects additional data recently provided to us which shows that some asphalts contain minute quantities of compounds currently listed by the State of California as potential carcinogens, and is made solely out of an abundance of caution as a result of a California law called Proposition 65. This is a similar situation to gasoline - a multi compound crude oil derivative, which for the reason noted above, also carries the same California warning, as do china, crystal, plumbing fixtures and numerous other products. A list of these chemicals can be found at the following website:

[http://www.oehha.org/prop65/out\\_of\\_date/6022kLstA.html](http://www.oehha.org/prop65/out_of_date/6022kLstA.html)

Asphalt is not listed on the California carcinogen or reproductive toxin lists; however, for the above reasons, it is likely that all asphalt-containing products ultimately will be so labeled.

Our Capstone products, which also contain asphalt and are sold in California, will soon have the warning label printed on the wrapper.

In terms of ranchers using roof water runoff for drinking purposes, we still recommend that the water be filtered and tested to ensure that there are no adverse effects. The Proposition 65 Warning Label should have no effect on the rancher's current practices.

I hope that this answers your questions. If you have any additional concerns, please do not hesitate to contact me at (661)-391-3900.

Sincerely,

Christine Griffith  
Technical Group Supervisor  
Elk Corporation of Texas \ California Division

**ELK**   
Premium Roofing  
Asphalt Shingles

*15th July 2000*

*To whom it may concern*

*Analysis of roof, run - off water, from asphalt shingle roofing,  
for the purpose of drinking water.*

*Chemtest Laboratories Ltd, in conjunction with Dr Peter  
Johnson, of Harrison Grierson Consultants Ltd, have  
produced the following observations with regard to the  
suitability of samples analysed, for the purpose of rain water  
collection and human consumption.*

*Although the finding's were for the most part within the  
recommendations set down by the 1995 New Zealand drinking  
water standards, it should be noted that additional care and  
expertise should be sought with regard to the proper treatment  
and storage of rain water collection for human consumption.*

*Open air collection systems pose many risks to health and  
drinking water should at the very least be properly filtered or  
sterilised by distillation process. Neither ELK Corporation nor  
their New Zealand representatives recommend the  
consumption of untreated rain water run - off.*

*best regards*



*Mark Probett  
distributor*

GREENTREE N.Z. LTD.

64 Kath Hopper Drive, Orewa, New Zealand. Ph/Fax 64 942 62199 Mobile 025 776 715

CAPSTONE®

Z RIDGE®

PRESTIQUE®



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ELK PREMIUM ROOFING  
64 KATH HOPPER DR  
OREWA  
M. PROBETT

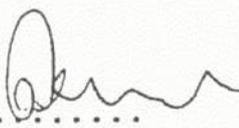
DATE RECEIVED 9.05.2000

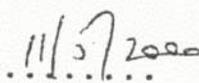
LABORATORY ANALYSIS : WATER SAMPLE

LAB. REFERENCE :		W2000/130/4
SAMPLE REFERENCE:		SAMPLE 3
	UNITS	PRESTIQUE 2
pH		5.58
Total Alkalinity	(mg/l)	9
Free Carbon Dioxide	(mg/l)	54
Conductivity	( * )	31
Approximate TDS	( * )	22
Calcium	(mg/l)	1
Magnesium	(mg/l)	LT 0.5
Carbonate Hardness	(mg/l)	2
Non Carbonate Hardness	(mg/l)	0
Total Hardness	(mg/l)	2
Sodium	(mg/l)	4
Potassium	(mg/l)	1
Iron	(mg/l)	0.09
Manganese	(mg/l)	LT 0.05
Zinc	(mg/l)	LT 0.05
Copper	(mg/l)	LT 0.05
Boron	(mg/l)	LT 0.05
Chloride	(mg/l)	0.23
Nitrate-Nitrogen	(mg/l)	LT 0.05
Ammonia-Nitrogen	(mg/l)	0.22
Sulphate	(mg/l)	1
Total Cations	(meq/l)	0.25
Total Anions	(meq/l)	0.15

Total alkalinity and hardness values are expressed as mg/l of Calcium Carbonate. Conductivity is expressed as microsiemmen.cm. TDS means total dissolved solids and is expressed as mg/l. LT means less than.

Please do not hesitate to call if you would like to discuss these results or their use.

Analyst... 

Date...  11/5/2000



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LABORATORIES LTD

ELK PREMIUM ROOFING  
64 KATH HOPPER DR  
OREWA  
M. PROBETT

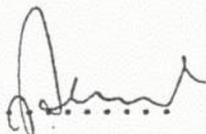
DATE RECEIVED 9.05.2000

LABORATORY ANALYSIS : WATER SAMPLE

LAB. REFERENCE :		W2000/130/2	W2000/130/3
SAMPLE REFERENCE:		SAMPLE 1	SAMPLE 2
	UNITS	PRESTIQUE PLUS	CAPSTONE MOSS ROS
pH		5.94	5.93
Total Alkalinity	(mg/l)	12	7
Free Carbon Dioxide	(mg/l)	36	17
Conductivity	( * )	37	40
Approximate TDS	( * )	26	28
Calcium	(mg/l)	1	1
Magnesium	(mg/l)	0.2	0.2
Carbonate Hardness	(mg/l)	3	3
Non Carbonate Hardness	(mg/l)	0	0
Total Hardness	(mg/l)	3	3
Sodium	(mg/l)	3	4
Potassium	(mg/l)	1	1
Iron	(mg/l)	0.11	0.12
Manganese	(mg/l)	LT 0.05	LT 0.05
Zinc	(mg/l)	LT 0.05	LT 0.05
Copper	(mg/l)	LT 0.05	LT 0.05
Boron	(mg/l)	LT 0.05	LT 0.05
Chloride	(mg/l)	0.4	1.1
Nitrate-Nitrogen	(mg/l)	LT 0.05	LT 0.05
Ammonia-Nitrogen	(mg/l)	0.26	0.21
Sulphate	(mg/l)	LT 0.5	LT 0.5
Total Cations	(meq/l)	0.23	0.26
Total Anions	(meq/l)	0.21	0.14

Total alkalinity and hardness values are expressed as mg/l of Calcium Carbonate. Conductivity is expressed as microsiemmen.cm. TDS means total dissolved solids and is expressed as mg/l. LT means less than.

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Analyst 

Date 11/5/2000