54 Gerald Street PO Box 69040 Lincoln, 7640			F _	
Ph: +64 3 321 9999 Fax: +64 3 321 9999	В		R	ceport No: T6910
CLIENT:	Depa	rtment of Conservat	tion, 2 South End Ave	, Raumanga Whangarei
	0110		~	
CLIENT REFERENC	E No.: Russell State Fores	st	Telephone	No: 09 470 3300
SAMPLES:	Four water samples	6	$\langle \rangle$	V VV
REQUIREMENT:	Examine for fluoroa	cetate	\sim \vee	> Q V
RECEIVED:	02 October 2018		102	(2)
22168 Water sam 22169 Water sam <i>Il results are reporte</i> The determination wa	ple, Catch 3. 28/9/18 ple, Catch 4. 28/9/18 ad to two significant figures. as carried out Using TLMO GLC	05, the assay of fluo The method detection	roacetate in water, so on limit (MDL) is 0.00	<mdl <mdl bil and biological materials b 01µg/mL and the uncertain</mdl </mdl
	WORKBOOK PEE	10/15		
ESTED BI: UN	TEST RERIOD:	2-3/10/18		
UTHORISED BY:	Date: 3/10/2018			DITED LABORATORY

J	Analysis Re	port
54 Gerald Street PO Box 69040		
Lincoln, 7640		Report No: T6012
Fax: +64 3 321 9998		
CLIENT:	Department of Conservat 0110	ion, 2 South End Ave, Raumanga Whangarei
LIENT REFERENCE	No.: Russell State Forest	Telephone No: 09 470 3300
SAMPLES:	Twenty water samples	V/N /N
REQUIREMENT:	Examine for fluoroacetate	$ \rightarrow $
RECEIVED:	02 October 2018	(02 (2)
abrio. Description		
22170 Water sample	e WT1 29/9/18	
22171 Water sample	e, WT2,, 29/9/18	<pre>MDL</pre>
22172 Water sample	e, WT3,, 29/9/18	<mdl< td=""></mdl<>
2173 Water sample	e, WT4,, 29/918	0.0001
22174 Water sample	e, WT5, 29/918	<mdl< td=""></mdl<>
22175 Water sample	e, WT6, 29/9/18	<mdl< td=""></mdl<>
2176 Water sample	e, WT7, 29/9/18	<mdl< td=""></mdl<>
2177 Water sample	e, WT8, , 29/9/18	<mdl< td=""></mdl<>
2178 Water sample	e, W19, 11 , 29/9/18	<mdl< td=""></mdl<>
21/9 Water sample	e, w10,, 29/9/18	<mdl< td=""></mdl<>
2180 Water sample	, ///11,, 30/9/18	<mdl< td=""></mdl<>
2181 Water sample	, w12,, 30/9/18	<mdl< td=""></mdl<>
vater sample	, 30/9/18	<mdl< td=""></mdl<>
2103 Vvater sample	WT4,, 30/9/18	<mdl< td=""></mdl<>
2104 Water sample	, XV 12, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	<mdl< td=""></mdl<>
ALALANA 30 NO	10/06/ 20/0/40	and a second s

22186 Water sample, WT7, 30/9/18

22187 Water sample, WT8, ____, 30/9/18

22188 Water sample, WT9, ____, 30/9/18

22189 Water sample, WT10, ____, 30/9/18

<MDL

<MDL

<MDL

<MDL

All results are reported to two significant figures.

 The determination was carried out using
 TLM005, the assay of fluoroacetate in water, soil and biological materials by GLC. The method detection limit (MDL) is 0.0001µg/mL and the uncertainty (95% c.i.) is ± 12%.

 TESTED BY:
 Inb
 WORKBOOK REF:
 10/15 and 10/16

 TEST PERIOD:
 2-4/10/18

 AUTHORISED BY:
 Image: Author of the client and relate only to the samples as received and tested. This report may be reproduced in full only. The samples relating to this report will be disposed of after two months from the report date unless requested otherwise by the client. Where appropriate, the above results will be included in anonymised form in the National Vertebrate Pesticide Residue Database.

54 Ger	ald Street				
PO Box	x 69040 7640				
Ph: +64	4 3 321 9999			Rep	ort No: T6926
Fax. TO	94 3 321 9998				\wedge
CLIENT	:	0110 De	partment of Conservati	on, 2 South End Ave, F	laumanga Whangarei
CLIENT	REFERENCE N	o.: Russell State For	rest	Telephone No	09 470 3300
SAMPL	ES:	Ten water sample	es		5 102
REQUIR	REMENT:	Examine for fluor	oacetate	~ /)	A V
RECEIV	ED:	17 October 2018		102°	12
given a No. sam	reference numbe I ples: 10	r. The sample details	and results are as follo	WWS:	
LabNo.	Description		1/2		Fluoroacetate, µg/m
22234	Water sample,	WT1,, 15/10/	18	~10~	<mdl< td=""></mdl<>
22235	Water sample,	WT2,, 15/10	/18	ININ	<mdl< td=""></mdl<>
22236	Water sample,	WT3,, 15/	10/18	Par	<mdl< td=""></mdl<>
22237	Water sample,	WT4, 15/ 1071	8 (01	V	<mdl< td=""></mdl<>
22238	Water sample,	WT5, 15/10	0/18	~	<mdl< td=""></mdl<>
22239	Water sample,	WT6,, 15/10/18	$(())^{\times}$		<mdl< td=""></mdl<>
22240	Water sample,	WT7, , 15/10/18	8		<mdl< td=""></mdl<>
22241	Water sample,	WT8, 15/10/1	8		<mdl< td=""></mdl<>
22242	Water sample,	VT9, 15/10/18	32/1		<mdl< td=""></mdl<>
22243	Water sample,	WT10,, 15/10/18	3		<mdl< td=""></mdl<>
All result.	s are reported to	two significant figure	s.		
he dete	rmination was ca	rried out using TLM GLC (95%	1005, the assay of fluor . The method detectio 6 c.i.) is ± 12%.	pacetate in water, soil a n limit (MDL) is 0.0001p	nd biological materials t .g/mL and the uncertain
ESTED	BY: the	WORKBOOK REI	F: 10/20		
~	$\langle \langle \rangle \rangle$	TEST PERIOD:	17-1 8 /10/18		
UTHOR	ISED BY:				
11	>				
))				A	NZ
				L P day & B. Sec. 4	

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Manaaki Whenua **Toxicology Laboratory** Landcare Research **Analysis Report** 54 Gerald Street PO Box 69040 Lincoln, 7640 Report No: T6925 Ph: +64 3 321 9999 Fax: +64 3 321 9998 CLIENT: Department of Conservation, PO Box 128, 34 Landing Road Kerikeri-09.407 0314 **CLIENT REFERENCE No.:** Cape Brett Telephone No: SAMPLES: Eight water samples **REQUIREMENT:** Examine for fluoroacetate **RECEIVED:** 02 October 2018 Sample/s were received for analysis. The details were entered into the laboratory sample system and the sample/s given a reference number. The sample details and results are as follows, 8 No. samples: LabNo. Description Fluoroacetate, µg/mL 22200 Water sample, Waitui Stream, 30/9/18 <MDL 22201 Water sample, Waitui Stream, 1/10/18, <MDL 22202 Water sample, Ohututea Bay, 30/9/18 <MDL 22203 Water sample, Ohututea Bay, 1/10/18 <MDL 22204 Water sample, Tangatapu Stream, 30/9/18 <MDL 22205 Water sample, Tangatapu Stream, 1/10/18 <MDL 22206 Water sample, Ahitapu Road, 30/9/18 <MDL 22207 Water sample, Ahitapu Road, 1/10/18 <MDL All results are reported to two significant figures.

The determination was carried out using TLM005, the assay of fluoroacetate in water, soil and biological materials by GLC. The method detection limit (MDL) is 0.0001µg/mL and the uncertainty (95% c.i.) is ± 12%.

TESTED BY: Ihb	WORKBOOK REF:	10/20			
	TEST PERIOD:	17-18/10/18			
AUTHORISED BY:					_
	Providence of the local data		And And	AN7	
NS	Date: 24/10/2018			ACCREDITED LABORATORY	
\bigcirc					

These results are confidential to the client and relate only to the samples as received and tested. This report may be reproduced in full only. The samples relating to this report will be disposed of after two months from the report date unless requested otherwise by the client. Where appropriate, the above results will be included in anonymised form in the National Vertebrate Pesticide Residue Database.

54 Gerald Street PO Box 69040 Lincoln, 7640 Ph: +64 3 321 9999 Fax: +64 3 321 9998		Report No: T6943
T ux. +0+ 0 521 0000		
CLIENT:	Department of Conservat	tion, PO Box 128, 34 Landing Road Kerikeri
CLIENT REFERENCE	No.: Cape Brett	Telephone No: 09 407 0314
SAMPLES:	Four water samples	ALC A
REQUIREMENT:	Examine for fluoroacetate	
RECEIVED:	30 October 2018	O V AV
22261 Water sample 22263 Water sample 22264 Water sample All results are reported The determination was	carried out using TLM005, the assay of fluoro GLC The method detection	<pre><mdl (mdl)="" 0.0001µg="" <mdl="" and="" biological="" by="" in="" is="" limit="" materials="" ml="" onacetate="" pre="" soil="" the="" uncertainty<="" water,=""></mdl></pre>
TESTED BY: amg	WORKBOOK REF: 5/1 TEST PERIOD: 30/10-1/11/18	
AUTHORISED BY:	Date: 1/11/2018	tested. This report may be reproduced in full only. The

PO Box 69040 Lincoln, 7640		
Ph: +64 3 321 9999 Fax: +64 3 321 9998		Report No: T6961
CLIENT:	Department of Conservation	, P.O.Box 842, Whangarei 0140 .
CLIENT REFERENCE	No.:	Telephone No: 09,438 0299
SAMPLES:	Three tuna samples	ALL A
REQUIREMENT:	Examine for fluoroacetate	
RECEIVED:	14 November 2018	A V AV
Sample/s were receive given a reference numl	d for analysis. The details were entered into the per. The sample details and results are as follow	laboratory sample system and the sample/s
No. samples:	3	
LabNo. Description	$\langle \bigcirc \rangle$	
22309 Muscle tissue All results are reported The determination was	to two significant figures. carried out using TLM005, the assay of fluoroa GLC. The method detection (95% c.i) is + 9%	<mdl cetate in water, soil and biological materials the limit (MDL) is 0.001µg/g and the uncertainty</mdl
TESTED BY: Ihb	WORKBOOK REF: 11/11 TEST PERIOD: 19-21/11/18	
UTHORISED BY:		

Laboratory Analysis Report 1	810B002, 13/11/20	018 1:17 PM			Page 1 of 1
Laboratory 79 Kioreroa Road,	Private Bag 902	23. Whangarei			
P: 09 4304 220					
W. www.wdc.govt.n	z E: wdclaborat	tory@wdc.govt.nz			
Department of Cor	nservation				~
P O Box 842				\square	
Whangarei	0140				CN V
whangarei@doc.g	ovt.nz				
Laboratory Analysis	Report		/	Ars	1.
Sample Information		Batch Site Name Customer Refe Sampled By Sample Receiv	1810B00 General S rence .Custome ed 1/10/2018	2 Surface Water er 3-1:04 PM	
Results		4	Pro 1	00	
Sample Reference		Ecolig7	Ecoligy	Ecoli97	
Secondary Reference		S1	S2	S3	
Notes		Waiotu	Punaruku	Waikare	
Our Reference	1	18100002	18100003	18100004	
Sample Collection		30/09/2078 12:30 PM	30/09/2018 1:27 PM	30/09/2018 12:35 PM	
Total Coliforms	MPN/100mL	233	6867	327	
rotal Conforms	INPN/IGUIL	38/3	0007	0004	
Test Method Information	ND>	(P)			
Method	220	Reference		Method Type	
Escherichia coli (E. coli)	\sim	APHA Section 9223	B (Colilert)	IANZ	
Total Coliforms		APHA Section 9223	B (Colilert)	IANZ	
End of Report	2012-2				
Results are based on sample(s) a except in full, without written cons	as received, every e ent of the signatory	effort is made to ensur y. Analysis is certified o	e these results are ac correct by the Key Te	ccurate. This report may not be re chnical Personnel.	produced
Signed	a all alle				17
Reported 13/11/2018 1:17 PM					
This Laboratory is accredited by I The tests specified in this report I	International Accre have been perform	ditation New Zealand. ed in accordance with	IANZ terms of accred	litation.	BURATURY

Relevant excerpts from Russell Forest and Cape Brett Assessment of **Environmental Effects**

Aquatic species

While the below species may not benefit directly from the operation, they are not considered to be at risk due to the very high tolerance most fish species have of 1080. Longfin eel (At Risk - Declining), lamprey (Nationally Vulnerable), giant bully (Not Threatened), bluegill bully (At Risk - Declining), banded kokopu (Not Threatened), redfin bully, shortfin eel, common bully, common smelt, inanga, and torrent fish.

Control measures:

Ensuring 1080 bait meets all quality specifications is considered the best way to avoid adversely affecting birds and other native species:/

- 1080 baits will be lured with cinnamon 1.
- 1080 baits will have a mean size of 12g or more and 95% of baits will weigh more 2. than 9g.
- 3. 1080 bait quality will be checked to ensure bait size complies with standards (see Section 7.3 Bait monitoring).
- 4. 1080 baits will be dyed green to deter birds.

1080 baits will be sown at an effective average sowing rate of 4 kg/ha.

Aquatic Species

Aquatic species are not considered likely to be at risk of 1080 poisoning because fish are highly tolerant of 1080 (Bauermeister et al. 1977); and contamination of water by 1080 has rarely been detected and only at extremely low level when it has occurred.