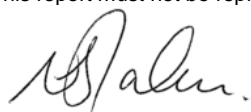


Week Ending	Supplier ID	SO3 (%)	Sodium Equ (NaEq)	Residue (%)	Fineness (m2/kg)	Initial Set (min)	Final Set (hour)	Soundness (%)	Water (%)	LOI (%)	3 D-MS (MPa)	7 D-MS (MPa)	28 D-MS (MPa)
16/02/2018	HRCL	2.30		5.10	320					1.00			
09/02/2018	HRCL	2.50	0.54	6.20	320	105	2.50	1.00	28.0	1.00	34.5		
02/02/2018	HRCL	2.50	0.54	6.20	320	90	2.75	1.00	28.0	1.00	33.5	49.5	
26/01/2018	HRCL	2.50	0.53	6.40	320	90	2.75	3.00	28.0	0.95	32.1	46.9	
19/01/2018	HRCL	2.40	0.50	5.50	320	90	2.75	2.00	28.2	0.95	32.8	47.6	
22/12/2017	HRCL	2.25	0.52	7.90	320	105	2.50	0.00	28.2	0.90	36.1	52.3	63.0
15/12/2017	HRCL	2.40	0.52	8.00	305	90	2.50	3.00	28.1	0.90	33.3	49.3	62.3
8/12/2017	HRCL	2.70	0.51	7.20	315	75	2.25	3.00	28.1	0.90	33.0	47.5	62.0
1/12/2017	HRCL	2.70	0.53	7.30	320	90	2.75	1.00	27.8	1.00	32.9	46.5	62.2
24/11/2017	HRCL	2.75	0.53	7.70	315	90	2.75	1.00	28.3	0.90	35.3	48.8	64.0
17/11/2017	HRCL	2.70	0.53	6.50	320	90	2.75	1.00	28.3	1.00	34.4	48.1	63.0
10/11/2017	HRCL	2.60	0.53	5.80	325	90	2.50	1.00	28.3	0.90	35.3	49.4	63.7
3/11/2017	HRCL	2.30	0.53	6.40	320	105	3.00	3.00	28.2	0.95	32.6	48.9	63.0
27/10/2017	HRCL	2.20	0.52	5.90	320	90	2.75	2.00	28.0	0.85	33.0	49.5	63.3
20/10/2017	HRCL	2.30	0.53	6.90	315	90	3.00	2.00	28.0	0.85	33.1	48.9	63.0
13/10/2017	HRCL	2.40	0.53	6.60	305	90	3.00	1.00	28.0	0.90	33.0	48.4	63.1
6/10/2017	HRCL	2.45	0.53	6.00	320	90	2.75	1.00	28.0	0.90	33.6	47.8	62.4
29/09/2017	HRCL	2.65	0.54	4.20	310	90	2.50	2.00	28.0	0.95	33.9	47.0	62.4
22/09/2017	HRCL	2.70	0.52	4.10	320	90	2.75	2.00	27.9	1.15	34.7	46.3	62.3
15/09/2015	HRCL	2.40	0.54	5.00	315	90	2.75	1.00	27.9	1.20	34.0	47.7	61.7
Min		2.20	0.50	4.10	305			0.00	27.8	0.85	32.1	46.3	61.7
Max		2.90	0.54	8.00	325			3.00	28.3	1.25	36.1	52.3	64.0
Mean		2.50	0.53	6.22	318			1.63	28.1	0.96	33.7	48.4	62.8
Std Dev		0.20	0.01	1.09	5.00			0.90	0.15	0.09	1.06	1.43	0.64
NZS 3122:2009		3.50	0.64			45	6.00	5.00				35.0	45.0
Requirements		maximum	maximum			minimum	maximum	maximum				Minimum	Minimum

The above samples were tested as received in accordance with NZS3122:2009 & AS2350:2006  
 Results also on [www.hrcl.co.nz](http://www.hrcl.co.nz) website  
 All testing performed by IANZ / NATA approved Laboratory.  
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Issue Date 16/02/2018  
 Report Id: HRGP18 #215



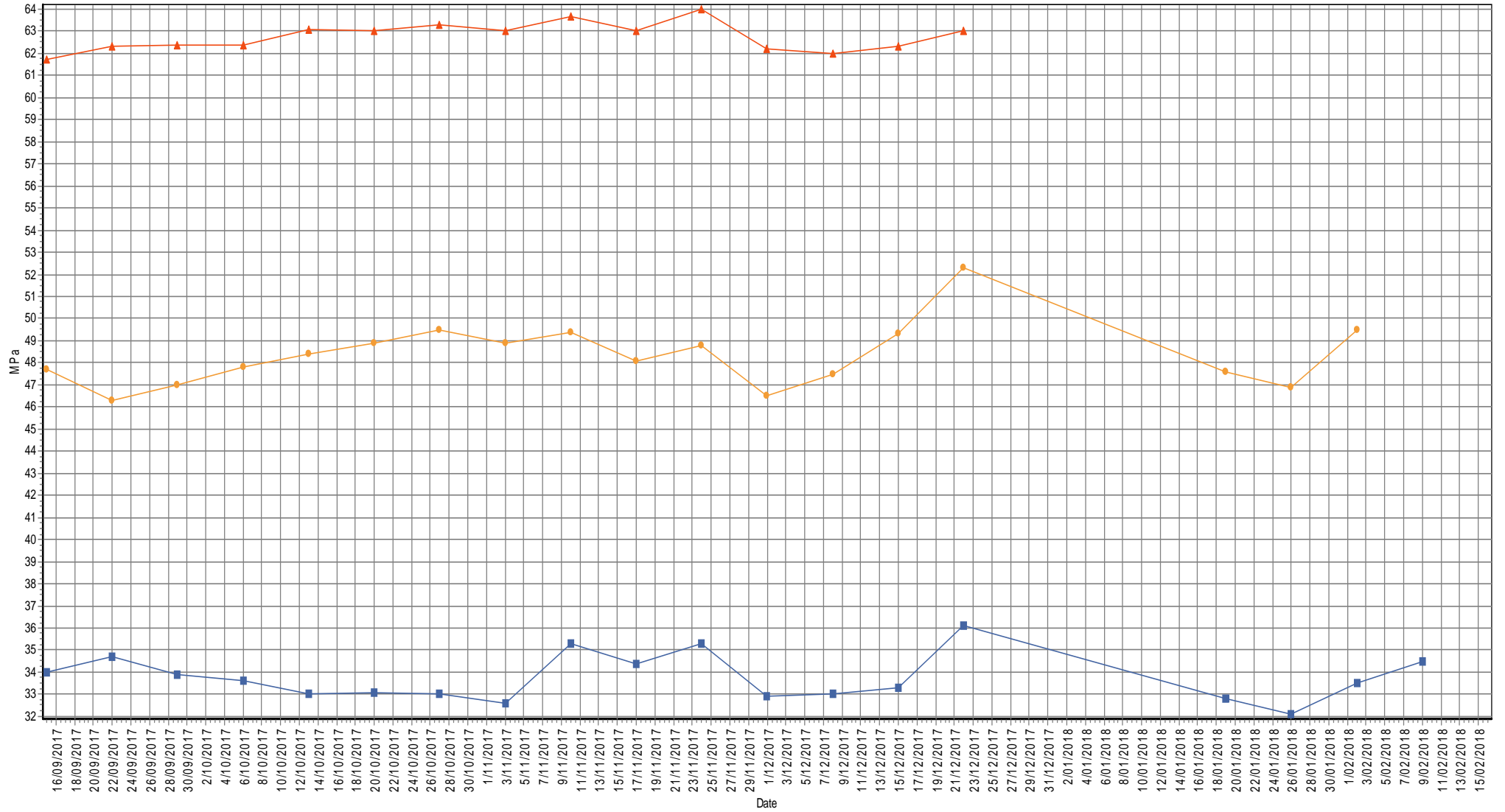
Nick Tabrum – National Technical Manager ([nick.tabrum@hrcl.co.nz](mailto:nick.tabrum@hrcl.co.nz))  
 60 Aerodrome Rd, Mt Maunganui, New Zealand.



Quality  
 ISO 9001

# HR - Ordinary Portland Cement Type GP

Material Type : Cement  
Material Code : GP -  
From : 15/09/2017  
To : 16/02/2018



■ 3 D-MS    ◆ 7 D-MS    ▲ 28 D-MS