

Machine Id **144 ROSSLAND** Component **Diesel Engine** Fluid **PETRO CANADA XR 4 SAE 15W40 (--- GAL)**

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR	

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

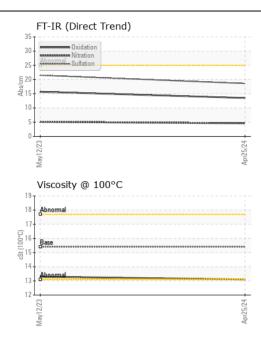
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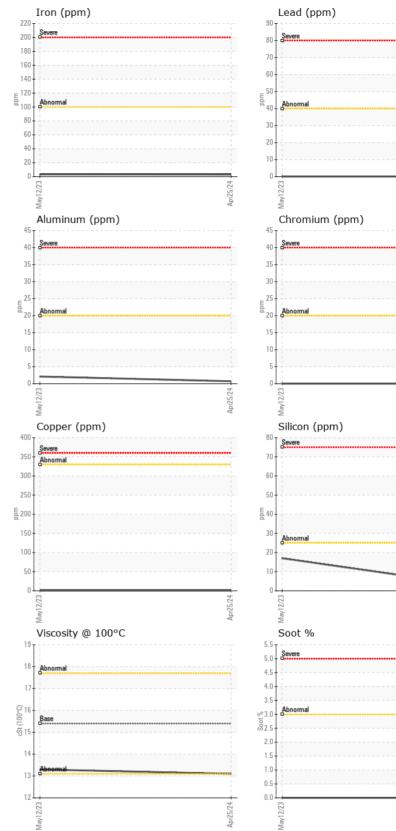
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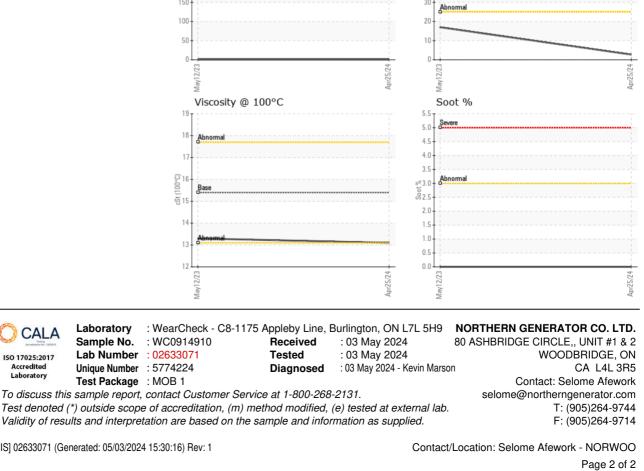
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Num	ıber	Client Info		WC0914910	WC0817446	
Sample Dat	te	Client Info		25 Apr 2024	12 May 2023	
Machine Ag	e hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Filter Age	hrs	Client Info		0	0	
Oil Change	d	Client Info		N/A	N/A	
Filter Chang	ged	Client Info		N/A	N/A	
Sample Sta	itus			NORMAL	NORMAL	
Iron	ppm	ASTM D5185(m)	>100	3	3	
Chromium	ppm	ASTM D5185(m)	>20	0	0	
Nickel	ppm	ASTM D5185(m)	>4	0	<1	
Titanium	ppm	ASTM D5185(m)	-	<1	4	
Silver	ppm	ASTM D5185(m)	>3	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	<1	2	
Lead	ppm	ASTM D5185(m)	>40	0	0	
Copper	ppm	ASTM D5185(m)	>330	<1	<1	
Tin	ppm	ASTM D5185(m)	>15	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Silicon	ppm	ASTM D5185(m)	>25	3	17	
Potassium	ppm	ASTM D5185(m)	>20	<1	1	
Fuel	pp	WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
Soot %	%	ASTM D7844*	>3	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	4.6	5.1	
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	21.5	
Emulsified W		Visual*	>0.2	NEG	NEG	
Sodium	ppm	ASTM D5185(m)		1	2	
Boron	ppm	ASTM D5185(m)	1	39	421	
Barium	ppm	ASTM D5185(m)	1	0	0	
Molybdenu	m ppm	ASTM D5185(m)	1	62	77	
Manganese	e ppm	ASTM D5185(m)		0	<1	
Magnesium	ppm	ASTM D5185(m)	10	947	426	
Calcium	ppm	ASTM D5185(m)	3032	1114	1513	
Phosphorus	s ppm	ASTM D5185(m)	1054	1021	1076	
Zinc	ppm	ASTM D5185(m)	1332	1191	1172	
Sulfur	ppm	ASTM D5185(m)	3985	2745	2839	
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.5	15.7	
Visc @ 100	°C cSt	ASTM D7279(m)	15.4	13.1	13.3	
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Contact/Location: Selome Afework - NORWOO







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Sample No.

Lab Number : 02633071

Unique Number : 5774224

Test Package : MOB 1

: WC0914910