

#### NORMAL WEAR CONTAMINATION NORMAL FLUID CONDITION NORMAL

# Machine Id 21 Component Diesel Engine PETRO CANADA DURON UHP 5W40 (--- GAL)

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Resample at the next service interval to monitor.

### **WEAR**

All component wear rates are normal.

### CONTAMINATION

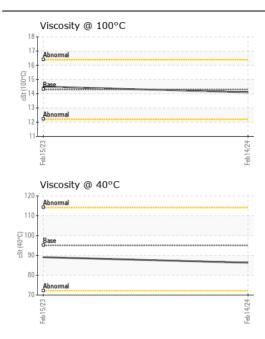
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

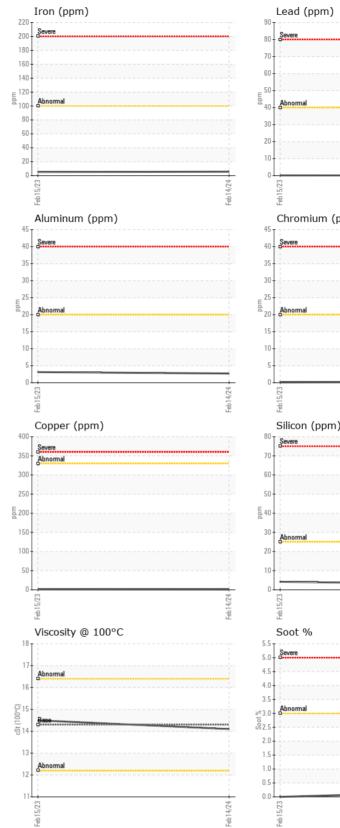
# FLUID CONDITION

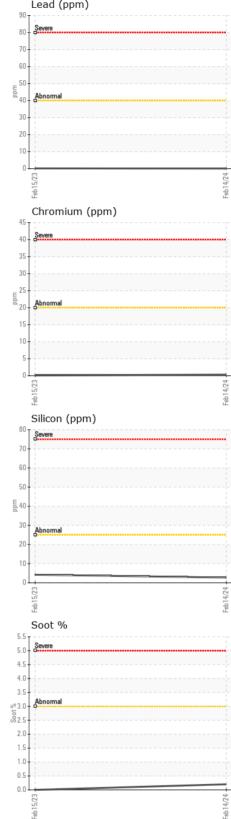
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2	
Sample Number		Client Info		PC0066778	PC0064373		
Sample Date		Client Info		14 Feb 2024	15 Feb 2023		
Machine Age	hrs	Client Info		10446	9778		
Oil Age	hrs	Client Info		327	250		
Filter Age	hrs	Client Info		327	250		
Oil Changed		Client Info		Not Changd	N/A		
Filter Changed		Client Info		Not Changd	N/A		
Sample Status				NORMAL	NORMAL		
			400				
Iron	ppm	ASTM D5185(m)	>100	6	5		
Chromium	ppm	ASTM D5185(m)	>20	<1	<1		
Nickel	ppm	ASTM D5185(m)	>4	0	0		
Titanium	ppm	ASTM D5185(m)		0	<1		
Silver	ppm	ASTM D5185(m)	>3	0	0		
Aluminum	ppm	ASTM D5185(m)	>20	3	3		
Lead	ppm	ASTM D5185(m)	>40	0	<1		
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	4		
Potassium	ppm	ASTM D5185(m)	>20	6	3		
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	0.2	0		
Nitration	Abs/cm	ASTM D7624*	>20	7.4	7.3		
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	21.6		
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG		
Sodium	ppm	ASTM D5185(m)		7	6		
Boron	ppm	ASTM D5185(m)	65	38	43		
Barium	ppm	ASTM D5185(m)	0	0	0		
Molybdenum	ppm	ASTM D5185(m)	65	55	57		
Manganese	ppm	ASTM D5185(m)	0	0	<1		
Magnesium	ppm	ASTM D5185(m)	1160	1045	1062		
Calcium	ppm	ASTM D5185(m)	820	801	836		
Phosphorus	ppm	ASTM D5185(m)	1160	984	1046		
Zinc	ppm	ASTM D5185(m)	1260	1116	1136		
Sulfur	ppm	ASTM D5185(m)	3000	2802	2787		
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.8	17.0		
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	86.3	89.1		
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	14.1	14.5		
Viscosity Index (VI)	Scale	ASTM D2270*	169	168	169		

Contact/Location: Service Manager - CITKIM







**CITY OF KIMBERLEY** Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : PC0066778 Received : 21 Feb 2024 340 SPOKANE ST Lab Number : 02616992 Tested : 22 Feb 2024 KIMBERLEY, BC ISO 17025:2017 CA V1A 2E8 Accredited Unique Number : 5734102 : 22 Feb 2024 - Wes Davis Diagnosed Laboratory Test Package : MOB 1 (Additional Tests: KV40, VI) Contact: Service Manager To discuss this sample report, contact Customer Service at 1-800-268-2131. ddrouin@kimberley.ca T: (250)427-9675 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Service Manager - CITKIM

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