

## [267967]

79785088

## **Diesel Engine**

PETRO CANADA 15W40 (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WA0020853	WA0018092	
Resample at the next service interval to monitor.	Sample Date		Client Info		29 May 2024	29 Jul 2022	
	Machine Age	hrs	Client Info		210	122	
	Oil Age	hrs	Client Info		30	0	
	Filter Age	hrs	Client Info		30	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185(m)		3	1	
	Chromium	ppm	ASTM D5185(m)		0	0	
	Nickel	ppm	ASTM D5185(m)		0	0	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)		0	<1	
	Aluminum	ppm	ASTM D5185(m)		<1	<1	
	Lead	ppm	ASTM D5185(m)	>40	0	0	
	Copper	ppm	ASTM D5185(m)		4	4	
	Tin	ppm	ASTM D5185(m)	>15	0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	2	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		3	<1	
	Fuel	le le		>3.0	<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	ASTM D7844*	>6	0	0	
	Nitration	Abs/cm	ASTM D7624*	>20	4.8	4.6	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	17.9	19.8	
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		1	2	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		2	2	
	Barium	ppm	ASTM D5185(m)		0	0	
	Molybdenum	ppm	ASTM D5185(m)		59	51	
	Manganese	ppm	ASTM D5185(m)		0	<1	
	Magnesium	ppm	ASTM D5185(m)		914	912	
	Calcium	ppm	ASTM D5185(m)		1020	989	
	Phosphorus	ppm	ASTM D5185(m)		1007	824	
	Zinc	ppm	ASTM D5185(m) ASTM D5185(m)		1128	896 2336	
	Sulfur	ppm			2501	0000	

Oxidation

Abs/.1mm ASTM D7414\* >25

Visc @ 100°C cSt ASTM D7279(m)

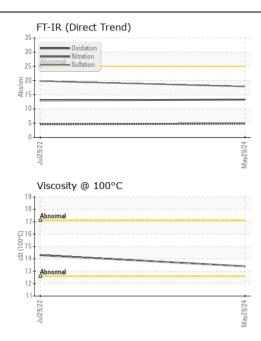
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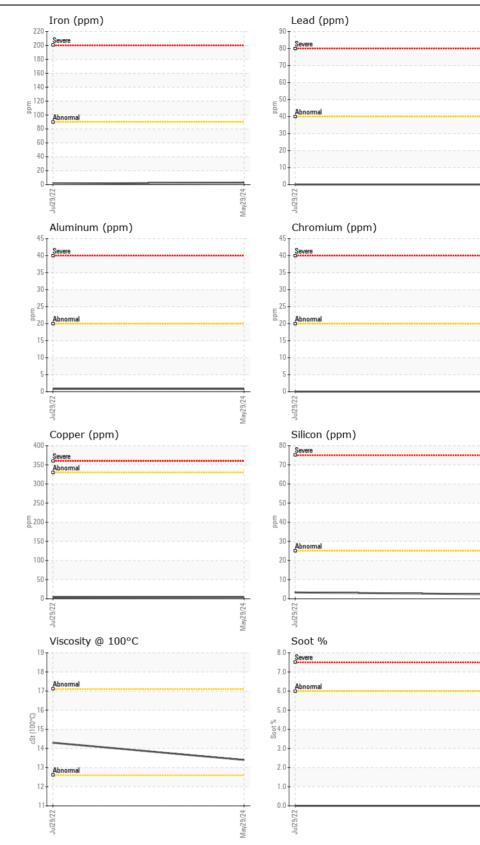
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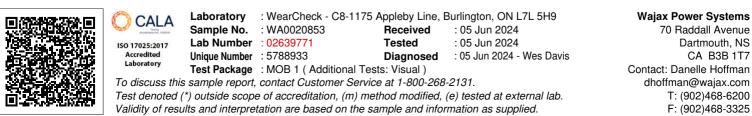
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WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL







Contact/Location: Danelle Hoffman - DDCDAR Page 2 of 2