

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id **FREIGHTLINER 862546** Component Diesel Engine

PETRO CANADA SUPREME 5W30 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		PC0085557		
	Sample Date		Client Info		20 Dec 2023		
	Machine Age	kms	Client Info		249766		
	Oil Age	kms	Client Info		0		
	Filter Age	kms	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>80	6		
	Chromium	ppm	ASTM D5185(m)		<1		
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		0		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm		>30	2		
	Lead	ppm	ASTM D5185(m)		0		
	Copper	ppm	ASTM D5185(m)		2		
	Tin	ppm	ASTM D5185(m)	>5	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>20	10		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		1		
	Fuel		WC Method		<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method	-	NEG		
	Soot %	%	ASTM D7844*		0		
	Nitration	Abs/cm	ASTM D7624*	>20	4.9		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	14.9		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance Odor	scalar	Visual* Visual*	NORML NORML	NORML		
	Emulsified Water	scalar scalar	Visual*	>0.2	NEG		
		Scalal	visuai	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		1		
	Boron	ppm	ASTM D5185(m)	186	156		
The BN result is higher than normal. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)	<1	0		
	Molybdenum	ppm	ASTM D5185(m)	79	62		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)		554		
	Calcium	ppm	ASTM D5185(m)	1002	1113		
	Phosphorus	ppm	ASTM D5185(m)	745	639		
	Zinc	ppm	ASTM D5185(m)	837	737		
	Sulfur	ppm	ASTM D5185(m)	2502	2284		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	9.1		
	Base Number (BN)	mg KOH/g	ASTM D2896*	7.0	8.82		
	Visc @ 40°C	cSt	ASTM D7279(m)		62.9		
	Vice @ 100°C	oSt.	ACTM D7070(m)	11 /0	10.0		

10.9

165

Visc @ 100°C cSt ASTM D7279(m) 11.42

Viscosity Index (VI) Scale ASTM D2270* 159



