

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id FREIGHTLINER 523085 Component Diesel Engine

PETRO CANADA DURON HP 15W40 (--- GAL)

PETRO CANADA DORON NE 13W40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		GFL0122248		
Resample at the next service interval to monitor.	Sample Date		Client Info		10 Jun 2024		
	Machine Age	hrs	Client Info		20023		
	Oil Age	hrs	Client Info		681		
	Filter Age	hrs	Client Info		681		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)		33		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)		1		
All component wear fates are normal.	Nickel	ppm	ASTM D5185(m)	>2	<1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)		<1		
	Aluminum	ppm	ASTM D5185(m)	>30	2		
	Lead	ppm	ASTM D5185(m)	>30	4		
	Copper	ppm	ASTM D5185(m)		1		
	Tin	ppm	ASTM D5185(m)	>5	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	VLITE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	0''''''''''''''''''''''''''''''''''''''				-		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>20	5		
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	0/	WC Method	0	NEG		
	Soot %	%	ASTM D7844*		0.1		
	Nitration	Abs/cm	ASTM D7624*	>20	9.2		
	Sulfation	Abs/.1mm	ASTM D7415*		21.4		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar		NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		4		
I LOID CONDITION	Boron	ppm	ASTM D5185(m)	0	5		
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		62		
	Manganese	ppm	ASTM D5185(m)		<1		
	Magnesium	ppm	ASTM D5185(m)		1005		
	Calcium	ppm	ASTM D5185(m)		1166		
	Phosphorus	ppm	ASTM D5185(m)		1021		
	Zinc		ASTM D5185(m) ASTM D5185(m)		1274		
	Sulfur	ppm ppm	ASTM D5185(m)		2406		
	Oxidation	Abs/.1mm	ASTM D5165(III) ASTM D7414*		18.5		
		cSt	ASTM D7414 ASTM D7279(m)				
	Visc @ 40°C		ASTM D7279(m) ASTM D7279(m)		105		
	Visc @ 100°C Viscosity Index (VI)	cSt Scale	()		13.8		
	viscosity index (VI)	Scale	ASTM D2270*	139	131		



