

## Machine Id INTERNATIONAL 828109

## Diesel Engine

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

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0122245		
	Sample Date	1	Client Info		06 Jun 2024		
	Machine Age	hrs	Client Info		14777		
	Oil Age	hrs	Client Info		650		
	Filter Age	hrs	Client Info		650		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185(m)	>100	16		
	Chromium	ppm	ASTM D5185(m)	>20	<1		
	Nickel	ppm	ASTM D5185(m)		<1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm	ASTM D5185(m)		2		
	Lead	ppm	ASTM D5185(m)		0		
	Copper	ppm	ASTM D5185(m)		1		
	Tin	ppm	ASTM D5185(m)		0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	VLITE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	2		
	Potassium	ppm	ASTM D5185(m)	>20	<1		
There is no indication of any contamination in the oil.	Fuel		WC Method	>2.0	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>3	0.4		
	Nitration	Abs/cm	ASTM D7624*	>20	9.3		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	19.5		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	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		
	~ <i>"</i>						
LUID CONDITION	Sodium	ppm	ASTM D5185(m)	0	1		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		3		
	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		58		
	Manganese	ppm	ASTM D5185(m)		<1		
	Magnesium	ppm	ASTM D5185(m)		951		
	Calcium	ppm	ASTM D5185(m)		1054		
	Phosphorus	ppm	ASTM D5185(m)		973		
	Zinc	ppm	ASTM D5185(m)		1187		
	Sulfur	ppm	ASTM D5185(m)		2470		
	Oxidation	Abs/.1mm			16.1		
	Visc @ 40°C	cSt	ASTM D7279(m)		102		
	Visc @ 100°C	cSt	ASTM D7279(m)		13.8		
	Viscosity Index (VI)	Scale	ASTM D2270*	139	136		



