

## Machine Id 920057 Component Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

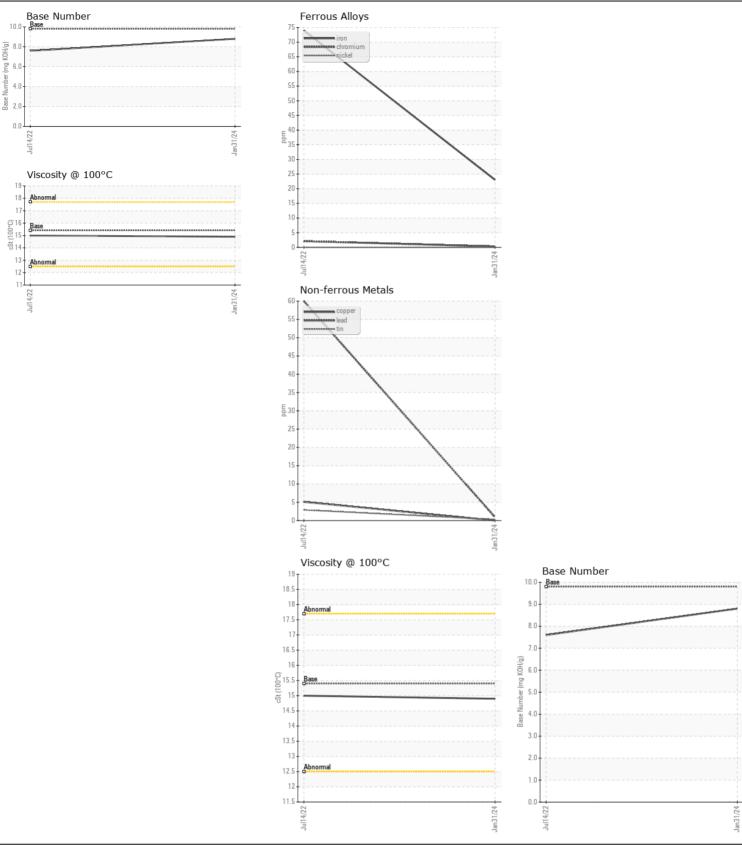
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0107483	GFL0055991	
	Sample Date		Client Info		31 Jan 2024	14 Jul 2022	
	Machine Age	hrs	Client Info		7024	0	
	Oil Age	hrs	Client Info		557	3875	
	Filter Age	hrs	Client Info		557	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	N/A	
	Sample Status				NORMAL	ABNORMAL	
WEAR	Iron	ppm	ASTM D5185m	>110	23	74	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	2	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m	~ _	0	<1	
	Silver	ppm	ASTM D5185m	>2	0	<1	
	Aluminum		ASTM D5185m		1	4	
		ppm			۰ 1		
	Lead	ppm	ASTM D5185m			▲ 60 <i>E</i>	
	Copper Tin	ppm	ASTM D5185m		0	5	
		ppm	ASTM D5185m	>4	<1	3	
	Vanadium	ppm	ASTM D5185m	NONE	0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>30	4	9	
	Potassium	ppm	ASTM D5185m	>20	0	4	
	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.4	2	
	Nitration	Abs/cm	*ASTM D7624	>20	7.1	13.0	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	31.3	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	4	
	Boron	ppm	ASTM D5185m	0	22	155	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	0	0	0	
	Molybdenum	ppm	ASTM D5185m		63	128	
	Manganese	ppm	ASTM D5185m		<1	2	
	Magnesium	ppm	ASTM D5185m		930	637	
	Calcium	ppm	ASTM D5185m		1039	1685	
	Phosphorus	ppm	ASTM D5185m		1030	755	
	Zinc		ASTM D5185m		1195	955	
	Sulfur	ppm	ASTM D5185m		3012	2868	
	Oxidation	ppm	*ASTM D5165/11				
		Abs/.1mm			14.8	26.4	
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	7.6	

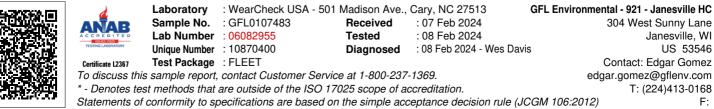
Visc @ 100°C cSt

ASTM D445 15.4

15.0

14.9





Submitted By: LEONARD KOZLEUCHAR