

Machine Id BLUE BIRD 111 Component Diesel Engine Fluid PETRO CANADA DURON HP 15W40 (--- GAL)

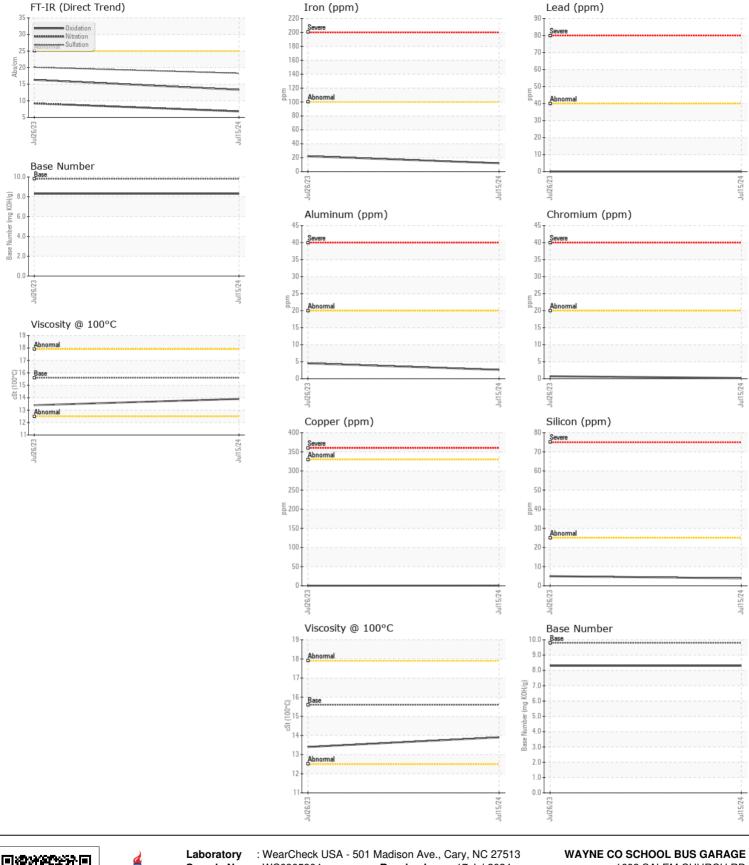
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0905904	WC0792705	
	Sample Date		Client Info		15 Jul 2024	26 Jul 2023	
	Machine Age	mls	Client Info		109105	98823	
	Oil Age	mls	Client Info		0	0	
	Filter Age	mls	Client Info		0	0	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		Not Changd	Not Changd	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	12	22	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		3	4	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		<1	<1	
	Tin	ppm	ASTM D5185m		0	<1	
	Vanadium	ppm	ASTM D5185m		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	<u>\</u> 25	4	5	
	Potassium	ppm	ASTM D5185m		2	4	
	Fuel	ррпі	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	>0.2	NEG	NEG	
	Soot %	%	*ASTM D7844	. 0	0.4	0.8	
	Nitration	Abs/cm	*ASTM D7644		6.8	9.2	
	Sulfation	Abs/.1mm	*ASTM D7624		18.3	20.1	
	Silt			NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
		scalar	*Visual				
	Sand/Dirt	scalar	*Visual	NONE	NONE NORML	NONE NORML	
	Appearance Odor	scalar	*Visual *Visual	NORML			
	Emulsified Water	scalar scalar	*Visual	NORML >0.2	NORML NEG	NORML NEG	
FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Sodium	ppm	ASTM D5185m		1	<1	
	Boron	ppm	ASTM D5185m		4	13	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		45	69	
	Manganese	ppm	ASTM D5185m		0	<1	
	Magnesium	ppm	ASTM D5185m		751	982	
	Calcium	ppm	ASTM D5185m		1247	1208	
	Phosphorus	ppm	ASTM D5185m		988	1084	
	Zinc	ppm	ASTM D5185m		1174	1335	
	Sulfur	ppm	ASTM D5185m		3582	3799	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.3	16.3	
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	8.3	
	Vier @ 10000	. 01		45.0	100	40.4	

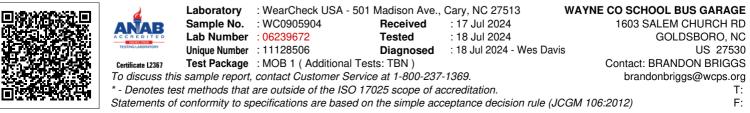
Visc @ 100°C cSt

ASTM D445 15.6

13.4

13.9





Contact/Location: BRANDON BRIGGS - WAYGOL Page 2 of 2