

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id **4709M** Component **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (5 GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0115135	GFL0115017	GFL0101484
	Sample Date		Client Info		16 May 2024	03 Mar 2024	04 Dec 2023
	Machine Age	hrs	Client Info		13404	12809	12084
	Oil Age	hrs	Client Info		595	725	11918
	Filter Age	hrs	Client Info		595	725	11918
	Oil Changed		Client Info		Changed	Changed	Not Changd
	Filter Changed		Client Info		Changed	Changed	Not Changd
	Sample Status				NORMAL	ABNORMAL	SEVERE
WEAR	Iron		ASTM D5185m	. 75	12	15	15
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0		<1
	Nickel	ppm	ASTM D5185m		۰ <1	<1 0	0
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m		0 <1	0	0
	Aluminum	ppm	ASTM D5185m		3	3	2
	Lead	ppm	ASTM D5185m		3 <1	<1	1
	Copper	ppm	ASTM D5185m		<1	<1	<1
	Tin	ppm ppm	ASTM D5185m		<1	0	0
	Vanadium	ppm	ASTM D5185m	24	0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Scalai	visuai			NONL	NONL
CONTAMINATION Fuel content negligible. There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>25	6	5	4
	Potassium	ppm	ASTM D5185m	>20	1	3	4
	Fuel	%	ASTM D3524	>3.0	0.5	4 .1	9 .6
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>6	0.4	0.2	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	9.2	9.6	11.4
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	21.2	21.7
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		6	4	18
	Boron	ppm	ASTM D5185m	0	2	1	7
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	2
	Molybdenum	ppm	ASTM D5185m		58	59	57
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m		982	974	861
	Calcium	ppm	ASTM D5185m		1041	1075	1032
	Phosphorus	ppm	ASTM D5185m		987	1003	901
	Zinc	ppm	ASTM D5185m		1312	1266	1133
	Sulfur	ppm	ASTM D5185m		3354	3065	2918
	Oxidation	Abs/.1mm	*ASTM D7414		18.3	19.4	20.5
	Base Number (BN)				7.5	8.3	7.2
				45.4		10.0	101

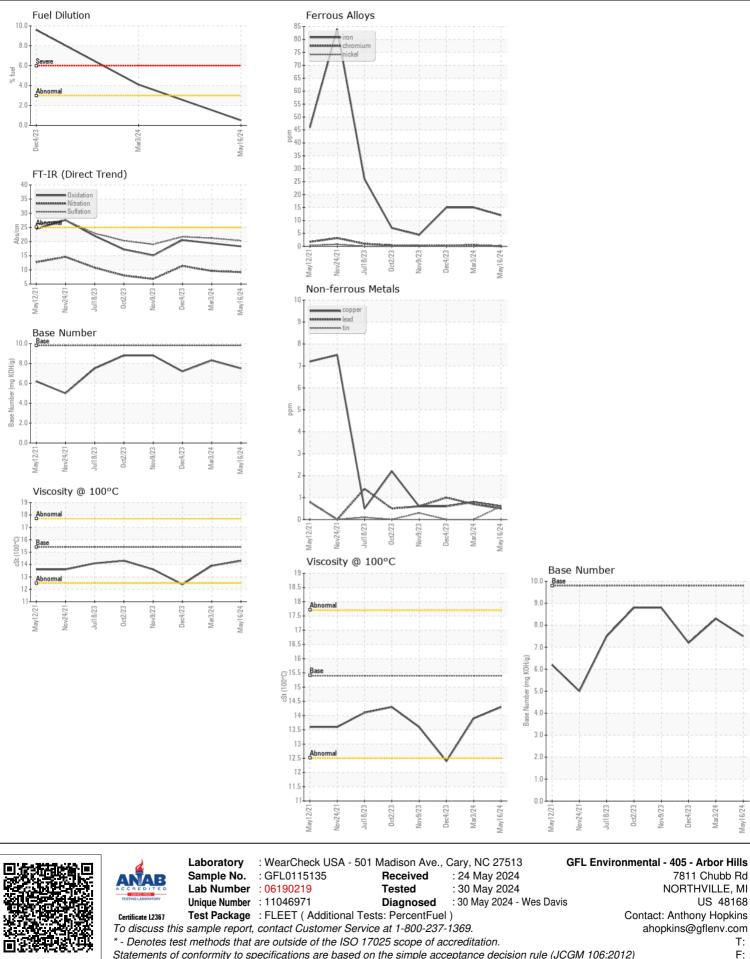
Visc @ 100°C cSt

ASTM D445 15.4

14.3

12.4

13.9



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)