

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id 7846M Component Diesel Engine Fluid

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

	151140 ( (						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0107722	GFL0096586	GFL0082787
	Sample Date		Client Info		16 Feb 2024	29 Nov 2023	13 Sep 2023
	Machine Age	hrs	Client Info		10517	9920	9339
	Oil Age	hrs	Client Info		600	600	600
	Filter Age	hrs	Client Info		600	600	600
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m		23	20	9
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		2	1	<1
	Nickel	ppm	ASTM D5185m		<1	0	<1
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>20	4	1	1
	Lead	ppm	ASTM D5185m	>40	<1	0	0
	Copper	ppm	ASTM D5185m	>330	2	1	<1
	Tin	ppm	ASTM D5185m	>15	<1	0	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Cilicon			. 05	10	4.4	7
CONTAMINATION	Silicon	ppm	ASTM D5185m		18 2	11 3	7
There is no indication of any contamination in the oil.	Potassium Fuel	ppm	ASTM D5185m				
			WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol	0/	WC Method	. 4	NEG	NEG	NEG
	Soot % Nitration	%	*ASTM D7844 *ASTM D7624		0.9 9.4	0.7 8.5	0.3 5.6
	Sulfation	Abs/cm Abs/.1mm	*ASTM D7624	>20	9.4 20.3	0.5 19.9	17.9
	Silt		*Visual		20.3 NONE	NONE	NONE
	Debris	scalar scalar	*Visual	NONE NONE	NONE	NONE	NONE
	Sand/Dirt		*Visual		NONE	NONE	NONE
		scalar scalar	*Visual	NONE NORML	NORML	NORML	NORML
	Appearance Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Scalai	visuai	>0.2	NEG	NLG	NLG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		6	1	10
	Boron	ppm	ASTM D5185m	0	3	<1	6
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	2	0
	Molybdenum	ppm	ASTM D5185m	60	60	59	59
	Manganese	ppm	ASTM D5185m		1	0	<1
	Magnesium	ppm	ASTM D5185m		999	870	966
	Calcium	ppm	ASTM D5185m		1141	1079	1100
	Phosphorus	ppm	ASTM D5185m		1032	870	1046
	Zinc	ppm	ASTM D5185m		1271	1129	1272
	Sulfur	ppm	ASTM D5185m		2838	2742	3727
	Oxidation	Abs/.1mm	*ASTM D7414		15.9	15.5	13.3
	Base Number (BN)				6.4	6.9	8.5
		ing noring		0.0	0.4	0.0	0.0

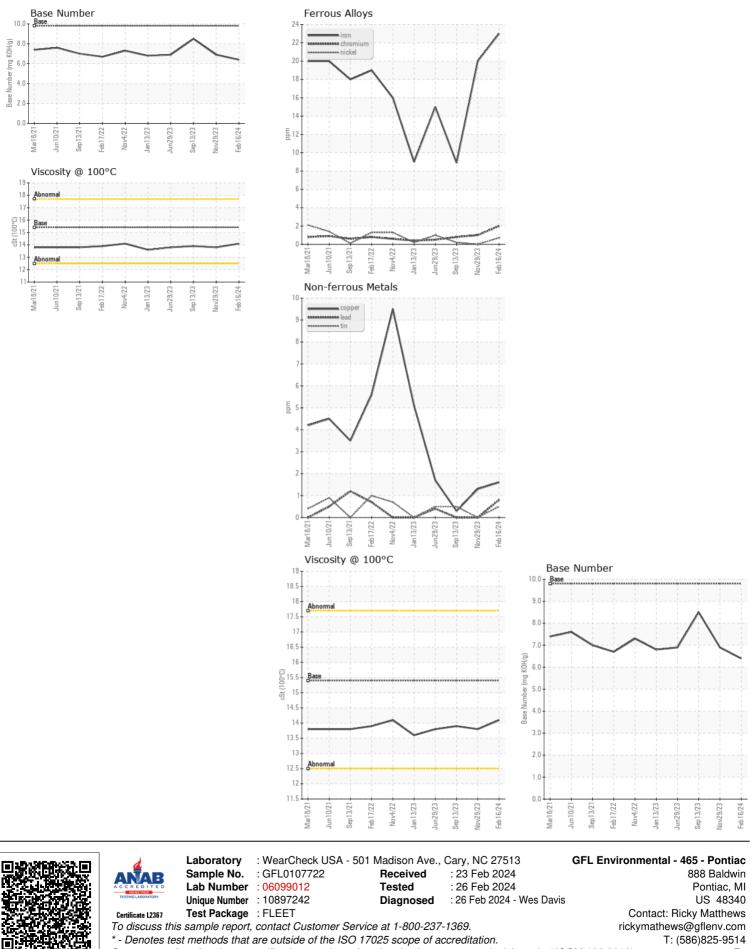
Visc @ 100°C cSt

ASTM D445 15.4

13.8

14.1

13.9



\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

F: