

Machine Id

## WEAR ABNORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



## 626M Component Diesel Engine

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

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0107708	GFL0081258	GFL0082765
	Sample Date		Client Info		05 Feb 2024	11 Jul 2023	20 Jun 2023
	Machine Age	hrs	Client Info		16618	9557	9845
	Oil Age	hrs	Client Info		600	600	600
	Filter Age	hrs	Client Info		600	600	600
	Oil Changed		Client Info		Changed	N/A	Changed
	Filter Changed		Client Info		Changed	N/A	Changed
	Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR Valve wear is indicated. All other component wear rates are normal.	Iron	ppm	ASTM D5185m	>120	30	3	7
	Chromium	ppm	ASTM D5185m	>20	2	0	<1
	Nickel	ppm	ASTM D5185m	>5	<b>1</b> 2	0	<1
	Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	4	<1	0
	Lead	ppm	ASTM D5185m	>40	1	0	2
	Copper	ppm	ASTM D5185m	>330	4	0	1
	Tin	ppm	ASTM D5185m	>15	1	0	<1
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	<u>\</u> 25	7	6	4
	Potassium	ppm ppm	ASTM D5185m		2	0	2
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method	>3.0	<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.L	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	<u>\</u>	0.8	0.2	0.5
	Nitration	Abs/cm	*ASTM D7624	>20	9.4	5.5	7.9
	Sulfation	Abs/.1mm	*ASTM D7415		20.7	18.0	20.8
	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		AQTM DE10E~		5	4	л
	Sodium	ppm	ASTM D5185m	0			4
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Boron Barium	ppm	ASTM D5185m ASTM D5185m		2 0	2 0	3
	Molybdenum	ppm	ASTM D5185m		92	61	60
	Manganese	ppm ppm	ASTM D5185m		92 1	<1	<1
	Magnesium	ppm	ASTM D5185m		1468	984	989
	Calcium	ppm	ASTM D5185m		1468	1159	1133
	Phosphorus	ppm	ASTM D5185m		1303	1060	1037
	Zinc	ppm	ASTM D5185m		1873	1252	1284
	Sulfur	ppm	ASTM D5185m		3826	3751	3544
	Oxidation	Abs/.1mm	*ASTM D5185111 *ASTM D7414		3626 16.3	14.0	16.4
	Base Number (BN)				5.8	9.0	8.0
				3.0	5.0	5.0	0.0

Visc @ 100°C cSt ASTM D445 15.4

14.1

14.0

13.8

