WEAR CONTAMINATION FLUID CONDITION

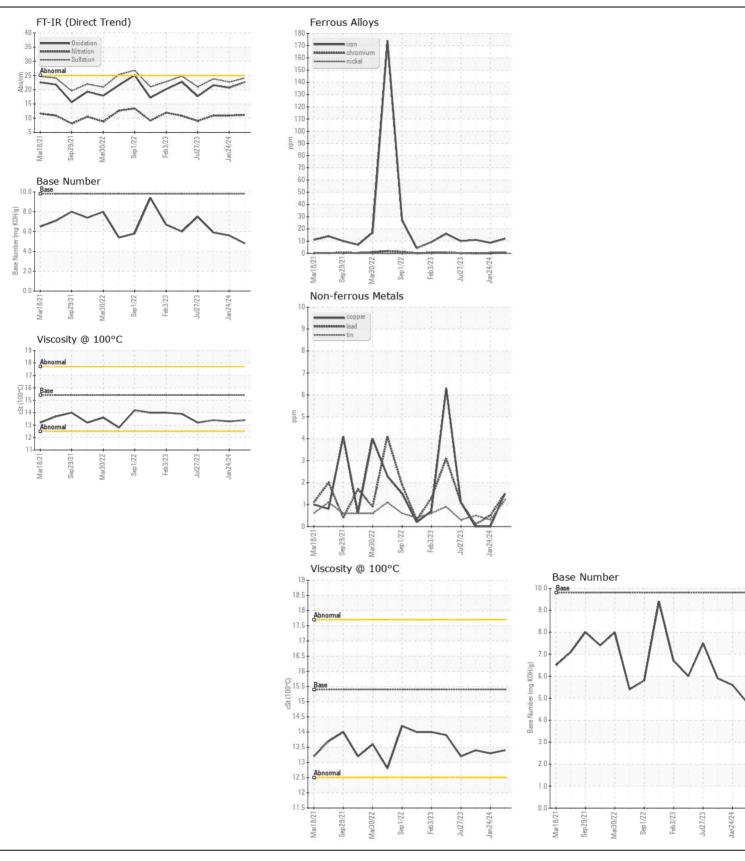
NORMAL NORMAL



Machine Id
727026-595
Component
Diesel Engine

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

PETRO CANADA DURON SHP	15W40 (C	AL)					
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		GFL0116274	GFL0094882	GFL0088305
Resample at the next service interval to monitor. (Customer Sample Comment: Serviced)	Sample Date		Client Info		18 Apr 2024	24 Jan 2024	31 Oct 2023
	Machine Age	hrs	Client Info		18418	17937	17276
	Oil Age	hrs	Client Info		593	17937	581
	Filter Age	hrs	Client Info		593	0	581
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>120	12	9	11
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	0	0
	Nickel	ppm	ASTM D5185m		<1	<1	0
	Titanium	ppm	ASTM D5185m	>2	<1	0	0
	Silver	ppm	ASTM D5185m	>2	<1	0	0
	Aluminum	ppm	ASTM D5185m	>20	7	5	2
	Lead	ppm	ASTM D5185m	>40	2	<1	<1
	Copper	ppm	ASTM D5185m	>330	2	0	0
	Tin	ppm	ASTM D5185m	>15	1	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	3	4
	Potassium	ppm	ASTM D5185m	>20	2	<1	0
There is no indication of any contamination in the oil.	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>4	0.2	0.3	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	11.1	10.9	10.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	24.1	22.7	23.8
	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	ppm	ASTM D5185m		3	3	4
	Boron	ppm	ASTM D5185m	0	5	8	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	0	0	0
	Molybdenum	ppm	ASTM D5185m	60	65	63	60
	Manganese	ppm	ASTM D5185m	0	<1	<1	0
	Magnesium	ppm	ASTM D5185m	1010	911	955	897
	Calcium	ppm	ASTM D5185m	1070	1101	1064	1035
	Phosphorus	ppm	ASTM D5185m	1150	1072	1011	986
	Zinc	ppm	ASTM D5185m		1238	1289	1202
	Sulfur	ppm	ASTM D5185m	2060	2961	2844	2661
	Oxidation	Abs/.1mm	*ASTM D7414		22.7	20.7	21.6
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	4.8	5.6	5.9
	Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.3	13.4







Certificate L2367

Laboratory

Sample No.

: GFL0116274 **Lab Number** : 06156755 Unique Number: 10992178 Test Package : FLEET

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Apr 2024

Tested : 23 Apr 2024 Diagnosed

: 24 Apr 2024 - Sean Felton

GFL Environmental - 625 - Harrison Hauling 4102 Industrial Pkwy

Harrison, MI US 48625

Contact: RON TROJANEK

ront@northerna1.com T: (231)624-0372

* - 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)