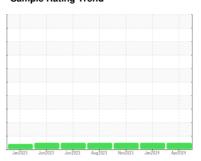


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id
413049
Component
Diesel Engine
Fluid

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

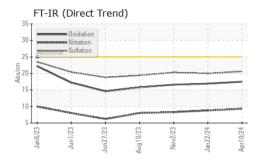
Fluid Condition

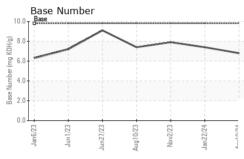
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

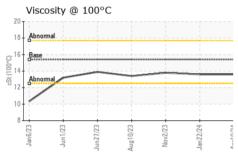
Sample Number Client Info GFL0106118 GFL0078640 GFL007861 Gample Date Client Info 10 Apr 2024 22 Jan 2024 02 Nov 2023 300	N 3HP 15W40 (-	GAL)				POLOCI	
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 600	Sample Number		Client Info		GFL0106118	GFL0078640	GFL0078619
Dil Age	Sample Date		Client Info		10 Apr 2024	22 Jan 2024	02 Nov 2023
Client Info	Machine Age	hrs	Client Info		-	3503	2903
NORMAL NORMAL NORMAL NORMAL CONTAMINATION method imit/base current history1 history2 Mater WC Method >3.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <	Oil Age	hrs	Client Info		600	600	0
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >3.0 <1.0	Oil Changed		Client Info		Changed	Changed	Changed
Fuel							
Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 -1 -1 -1 Chromium ppm ASTM D5185m >20 -1 -1 -1 Nickel ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >20 2 2 2 Lead ppm ASTM D5185m >40 -1 -1 0 Copper ppm ASTM D5185m >40 -1 -1 1 4 Tin ppm ASTM D5185m >15 1 -1 -1 -1 -1 Vanadium ppm ASTM D5185m 0 0 0	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METAL	_S	method	limit/base	current	history1	history2
Strickel	ron	ppm	ASTM D5185m	>120	12	9	10
Description	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>5	2	1	<1
Aluminum	Titanium	ppm	ASTM D5185m	>2	0	0	0
Aluminum	Silver		ASTM D5185m	>2	0	0	0
Lead	Aluminum		ASTM D5185m	>20	2	2	2
Copper	_ead	ppm	ASTM D5185m	>40	<1	<1	0
Tin	Copper		ASTM D5185m	>330	1	1	4
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 4 4 2 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 64 61 64 Manganese ppm ASTM D5185m 1010 1014 1000 949 Calcium ppm ASTM D5185m 1070 1153 1098 1093 Phosphorus ppm ASTM D5185m 1270 1313 1271 1253 Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 4 4				>15	1	<1	<1
ADDITIVES	Vanadium		ASTM D5185m		0	0	0
Boron	Cadmium		ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 64 61 64 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	4	4	2
Molybdenum ppm ASTM D5185m 60 64 61 64 Manganese ppm ASTM D5185m 0 <1	Barium		ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 1010 1014 1000 949 Calcium ppm ASTM D5185m 1070 1153 1098 1093 Phosphorus ppm ASTM D5185m 1150 1085 1063 935 Zinc ppm ASTM D5185m 1270 1313 1271 1253 Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 4 4 Sodium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/:1mm *ASTM	Molybdenum	ppm	ASTM D5185m	60	64	61	64
Magnesium ppm ASTM D5185m 1010 1014 1000 949 Calcium ppm ASTM D5185m 1070 1153 1098 1093 Phosphorus ppm ASTM D5185m 1150 1085 1063 935 Zinc ppm ASTM D5185m 1270 1313 1271 1253 Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 4 4 Sodium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION *ASTM D7	•		ASTM D5185m	0	<1	<1	0
Calcium ppm ASTM D5185m 1070 1153 1098 1093 Phosphorus ppm ASTM D5185m 1150 1085 1063 935 Zinc ppm ASTM D5185m 1270 1313 1271 1253 Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 4 4 Sodium ppm ASTM D5185m >20 3 4 8 Potassium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/:1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION *ASTM	-	ppm	ASTM D5185m	1010	1014	1000	949
Phosphorus ppm ASTM D5185m 1150 1085 1063 935 Zinc ppm ASTM D5185m 1270 1313 1271 1253 Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 4 4 Sodium ppm ASTM D5185m >20 3 4 8 Potassium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method	Calcium		ASTM D5185m	1070	1153	1098	1093
Zinc ppm ASTM D5185m 1270 1313 1271 1253 Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 4 4 Sodium ppm ASTM D5185m 4 3 2 Potassium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/.1mm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D	Phosphorus				1085	1063	935
Sulfur ppm ASTM D5185m 2060 3630 3065 3056 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 4 4 Sodium ppm ASTM D5185m 4 3 2 Potassium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6			ASTM D5185m	1270	1313	1271	1253
Silicon ppm ASTM D5185m >25 4 4 4 4 ASTM D5185m >20 3 2 ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6	Sulfur			2060	3630	3065	3056
Sodium ppm ASTM D5185m 4 3 2 Potassium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 4 8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6	Silicon	ppm	ASTM D5185m	>25	4	4	4
INFRA-RED	Sodium	ppm	ASTM D5185m		4	3	2
Soot % *ASTM D7844 >4 0.5 0.4 0.4 Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6	Potassium	ppm	ASTM D5185m	>20	3	4	8
Nitration Abs/cm *ASTM D7624 >20 9.3 8.8 8.3 Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6	Soot %	%	*ASTM D7844	>4	0.5	0.4	0.4
Sulfation Abs/.1mm *ASTM D7415 >30 20.6 20.0 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6				>20			8.3
Oxidation Abs/.1mm *ASTM D7414 >25 17.5 16.9 16.6							
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.5	16.9	16.6
PAGO HALLINGI DELLA ACTUAL DEGLA OLO U.U U.U I.T I.C	Base Number (BN)	mg KOH/g			6.8	7.4	7.9



OIL ANALYSIS REPORT



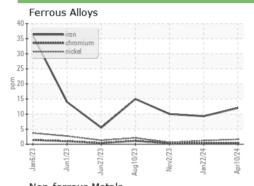


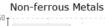


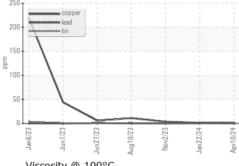
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

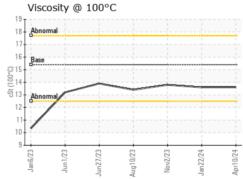
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.6	13.8	

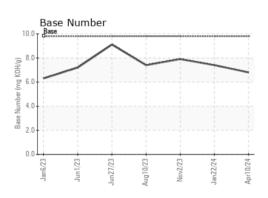
GRAPHS















Certificate 12367

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No.

Test Package : FLEET

Lab Number : 06161193 Unique Number : 10996616

: GFL0106118

Received **Tested** Diagnosed

: 26 Apr 2024 : 26 Apr 2024

: 26 Apr 2024 - Wes Davis

GFL Environmental - 152 - Jacksonville 7580 PHILIPS HWY Jacksonville, FL

US 32256 Contact: Chris Smith chris.smith@gflenv.com

T: (904)252-0013

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

* - 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)