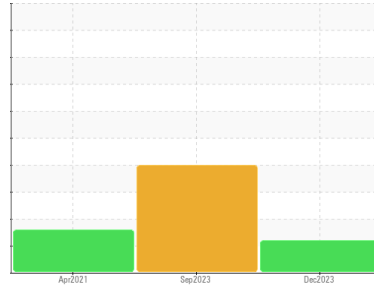


Machine Id
401220

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)



DIAGNOSIS

Recommendation

Vérifier le niveau du fluide de refroidissement. Nous avons pris note que la vidange d'huile a été effectuée au moment de l'échantillonnage. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. Aucune autre mesure corrective n'est recommandée pour l'instant.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Légère dilution de carburant dans l'huile. Des produits de traitement de l'eau sont présents, ce qui indique une fuite lente de fluide de refroidissement. Le test de glycol est négatif. Aucun autre contaminant n'a été détecté dans l'huile.

Fluid Condition

L'état de l'huile est acceptable pour la durée de service (voir recommandation).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0081870	PC0073180	PC0040869
Sample Date	Client Info			12 Dec 2023	05 Sep 2023	27 Apr 2021
Machine Age	kms	Client Info		0	702577	0
Oil Age	kms	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	N/A
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	NEG	NEG

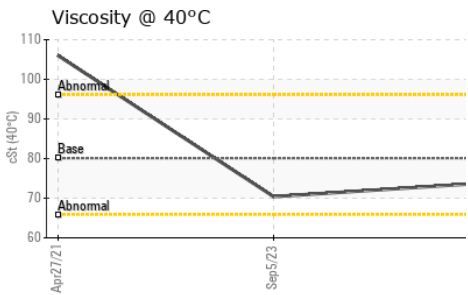
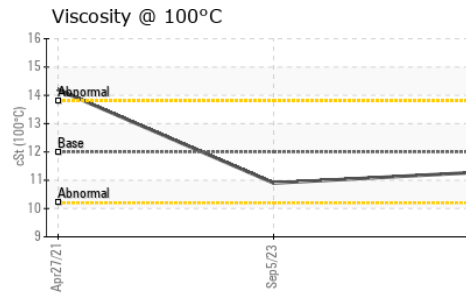
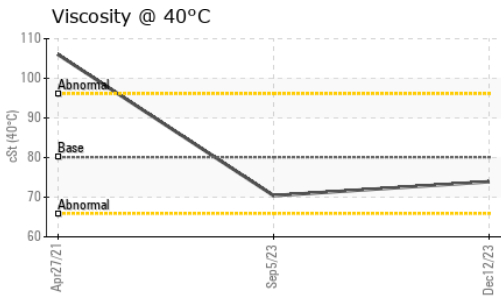
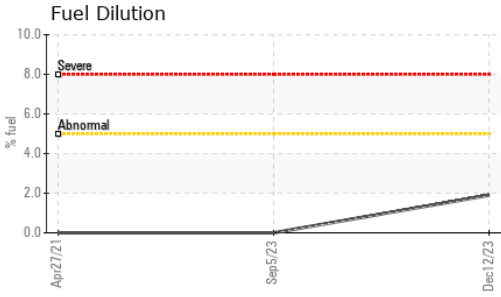
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>110	108	▲ 178	▲ 162
Chromium	ppm	ASTM D5185(m)	>4	3	▲ 5	▲ 4
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	8	13	8
Lead	ppm	ASTM D5185(m)	>45	8	10	10
Copper	ppm	ASTM D5185(m)	>85	4	5	3
Tin	ppm	ASTM D5185(m)	>4	<1	1	4
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	6	15	32
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	84	118	41
Manganese	ppm	ASTM D5185(m)	0	<1	1	2
Magnesium	ppm	ASTM D5185(m)	950	941	828	579
Calcium	ppm	ASTM D5185(m)	1050	1063	1030	1888
Phosphorus	ppm	ASTM D5185(m)	995	910	869	1107
Zinc	ppm	ASTM D5185(m)	1180	1161	1076	1420
Sulfur	ppm	ASTM D5185(m)	2600	2448	2489	2846
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	11	21	16
Sodium	ppm	ASTM D5185(m)		▲ 286	▲ 862	10
Potassium	ppm	ASTM D5185(m)	>20	47	▲ 136	5
Fuel	%	ASTM D7593*	>5	1.9	<1.0	<1.0
Glycol	%	ASTM D7922*		0.0	0.0	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	1.1	1.1	1.1
Nitration	Abs/cm	ASTM D7624*	>20	12.2	13.7	13.5
Sulfation	Abs./1mm	ASTM D7415*	>30	23.5	25.2	29.6

OIL ANALYSIS REPORT

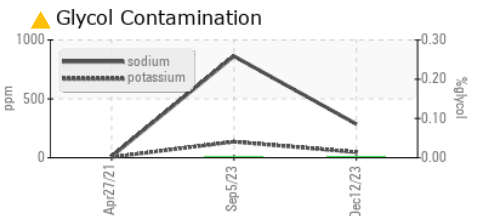
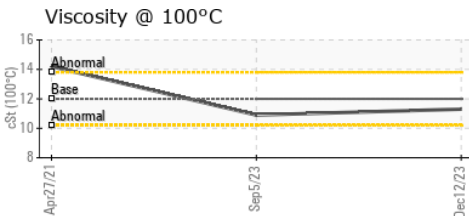
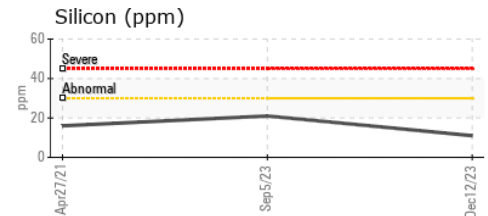
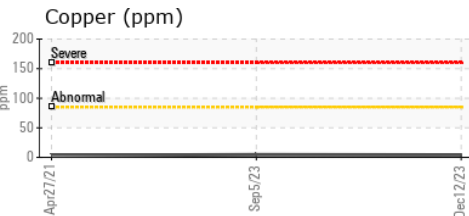
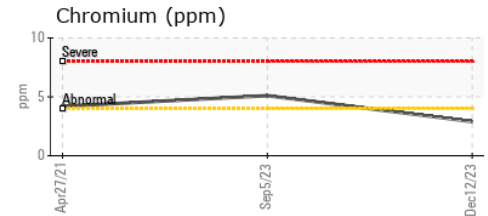
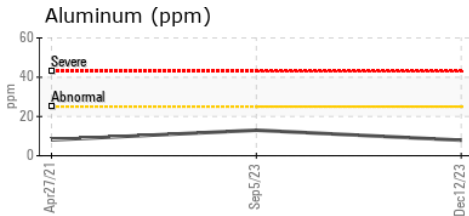
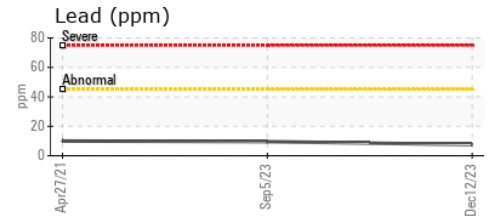
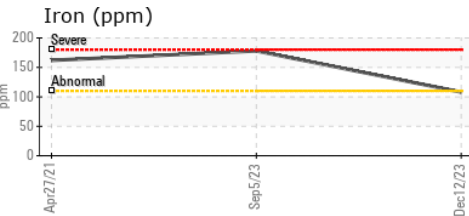


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.6	18.8	25.5

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	73.9	70.4	106
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.3	10.9	14.2
Viscosity Index (VI)	Scale	ASTM D2270*	144	144	144	136

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 737 - Quebec City Hauling
Sample No. : PC0081870 **Received** : 13 Dec 2023 6205 Boul. Wilfrid Hamel,
Lab Number : **02602774** **Diagnosed** : 18 Dec 2023 Quebec City, QC
Unique Number : 5695859 **Diagnostician** : Kevin Marson CA G2E 5G8
Test Package : MOB 1 (Additional Tests: FUEL DILUTION, Glycol, KV40, PercentFuel, VI, Visual) **Contact:** Dave Beaulieu
 davebeaulieu@matrec.ca

To discuss this sample report, contact Customer Service at 1-800-268-2131. T:
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F:
 Validity of results and interpretation are based on the sample and information as supplied.