

Machine Id
SPARTAN 24119/TRP2
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (26 LTR)

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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0075292	PC0056525	AP107759
Sample Date	Client Info			29 Jun 2023	02 Nov 2022	04 Sep 2017
Machine Age	hrs	Client Info		4420	94082	61327
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	5	8	3
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	1	<1
Aluminum	ppm	ASTM D5185(m)	>15	<1	2	3
Lead	ppm	ASTM D5185(m)	>25	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>100	2	4	3
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	2
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	<1

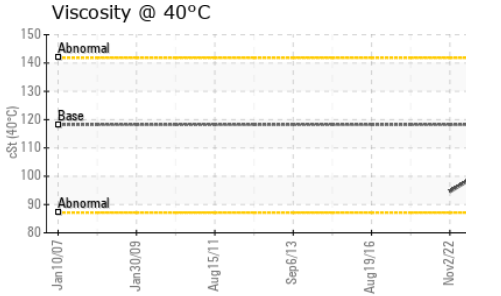
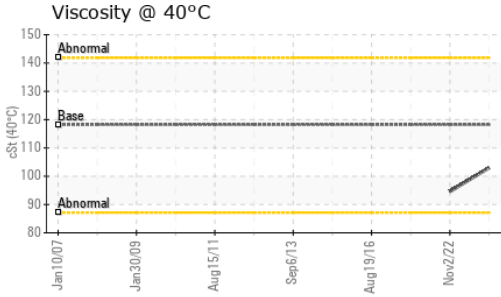
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	15	79	83
Barium	ppm	ASTM D5185(m)	0	<1	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	53	60	6
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	933	1066	10
Calcium	ppm	ASTM D5185(m)	1070	1053	976	2665
Phosphorus	ppm	ASTM D5185(m)	1150	966	1090	1107
Zinc	ppm	ASTM D5185(m)	1270	1138	1184	1313
Sulfur	ppm	ASTM D5185(m)	2060	2621	2907	3944
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2	4	2
Sodium	ppm	ASTM D5185(m)		1	<1	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.2	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.8	9.2	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	21.5	23.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.4	17.9	16.0

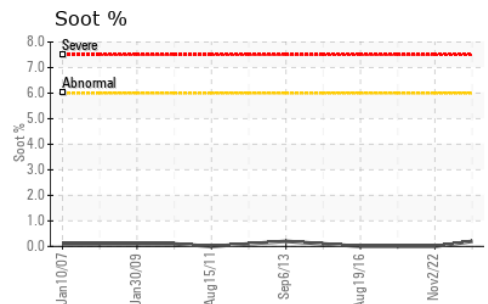
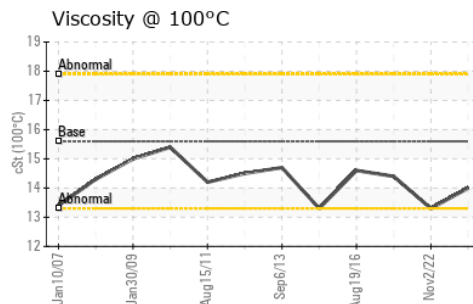
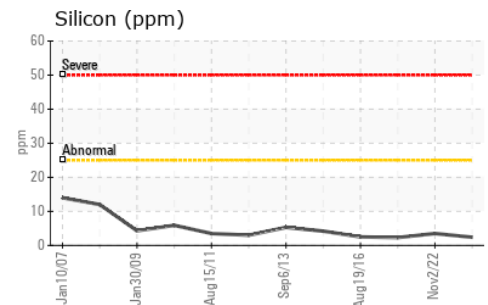
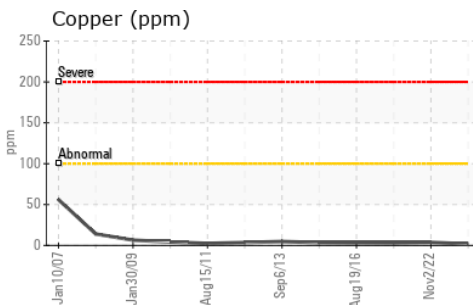
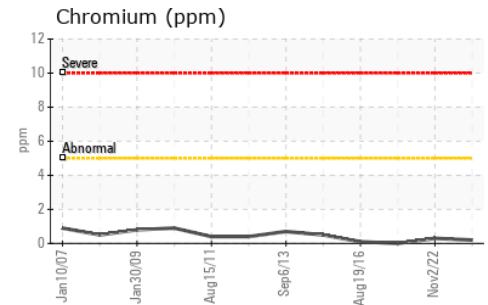
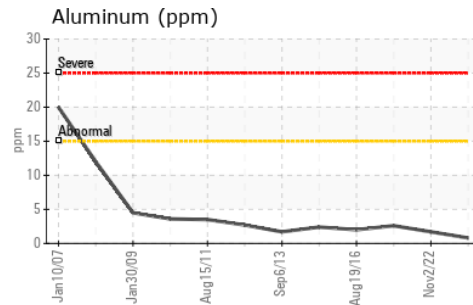
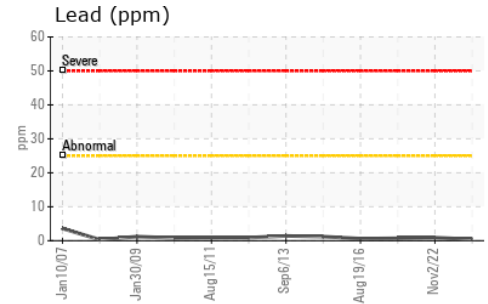
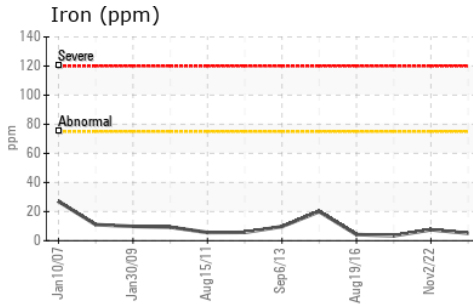
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	103	94.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.0	13.3
Viscosity Index (VI)	Scale	ASTM D2270*	139	137	140

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075292 **Received** : 06 Nov 2023
Lab Number : 02594124 **Diagnosed** : 06 Nov 2023
Unique Number : 5671203 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

TORONTO FIRE SERVICES
 40 TORYORK DRIVE
 TORONTO, ON
 CA M9L 1X6
 Contact: Antonio Rodrigues
 antonio.rodrigues@tonroto.ca
 T:
 F: (416)338-9207

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