

Machine Id
SPARTAN 24147/P443
Component
Right Diesel Engine
Fluid
CASTROL 15W40 (21 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Test for glycol is negative. 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			PC0083808	AP105601	---
Sample Date	Client Info			11 Jan 2024	11 Apr 2018	---
Machine Age	mths	Client Info		0	123006	---
Oil Age	mths	Client Info		6	0	---
Oil Changed	Client Info			N/A	Changed	---
Sample Status				NORMAL	ABNORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	---
Water	WC Method	>0.2		NEG	NEG	---

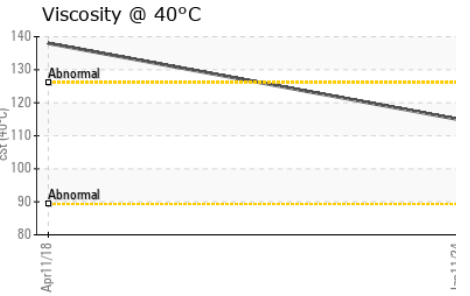
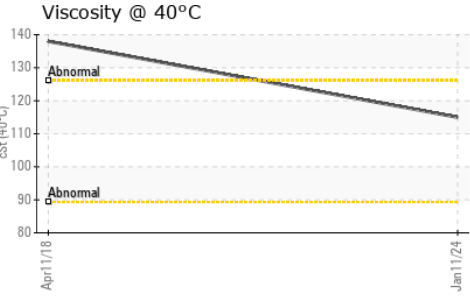
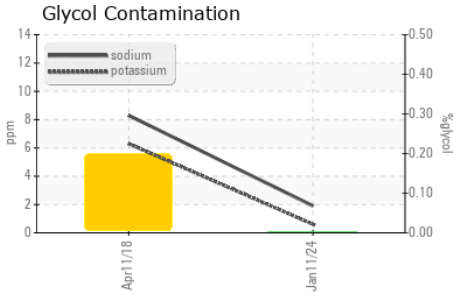
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	29	31	---
Chromium	ppm	ASTM D5185(m)	>5	2	1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	0	0	---
Aluminum	ppm	ASTM D5185(m)	>15	3	3	---
Lead	ppm	ASTM D5185(m)	>25	<1	3	---
Copper	ppm	ASTM D5185(m)	>100	1	2	---
Tin	ppm	ASTM D5185(m)	>4	0	0	---
Antimony	ppm	ASTM D5185(m)		0	1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		3	34	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		60	7	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)		966	59	---
Calcium	ppm	ASTM D5185(m)		1060	2555	---
Phosphorus	ppm	ASTM D5185(m)		992	1059	---
Zinc	ppm	ASTM D5185(m)		1165	1320	---
Sulfur	ppm	ASTM D5185(m)		2603	3508	---
Lithium	ppm	ASTM D5185(m)		<1	0	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	4	---
Sodium	ppm	ASTM D5185(m)	>406	2	8	---
Potassium	ppm	ASTM D5185(m)	>20	<1	▲ 6	---
Glycol	%	ASTM D7922*		0.0	▲ 0.20	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	3	3.3	---
Nitration	Abs/cm	ASTM D7624*	>20	12.0	14.7	---
Sulfation	Abs./1mm	ASTM D7415*	>30	27.0	31.7	---

OIL ANALYSIS REPORT

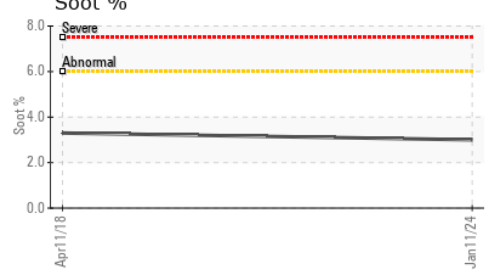
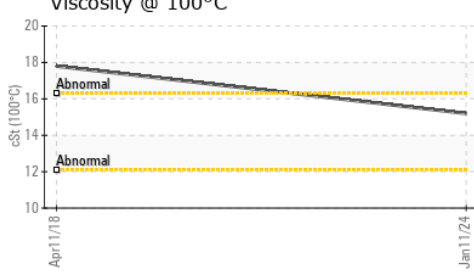
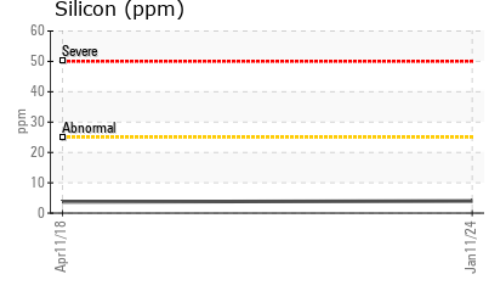
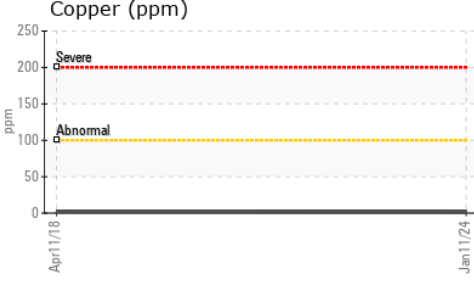
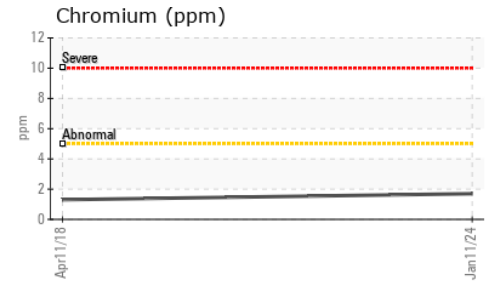
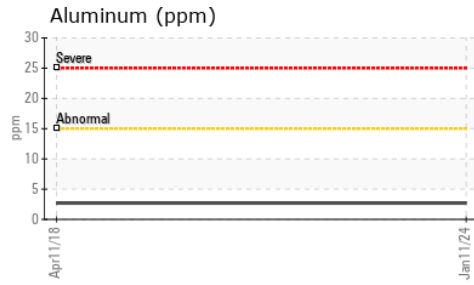
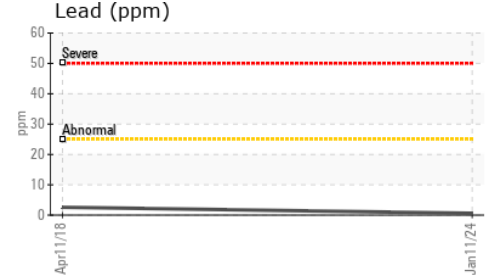
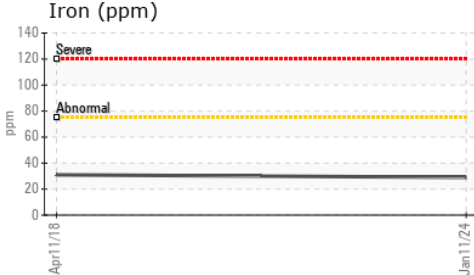


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	20.1	24.9

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)	115	▲ 138	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	▲ 17.8	---
Viscosity Index (VI)	Scale	ASTM D2270*	137	142	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083808 **Received** : 01 Mar 2024
Lab Number : 02619147 **Tested** : 01 Mar 2024
Unique Number : 5736257 **Diagnosed** : 01 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI)

TORONTO FIRE SERVICES
 40 TORYORK DRIVE
 TORONTO, ON
 CA M9L 1X6
 Contact: Antonio Rodrigues
 antonio.rodrigues@toronto.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.