

Machine Id
SPARTAN 24131 P221
Component
Rear Diesel Engine
Fluid
CASTROL HYPURON 15W40 (25 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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			PC0083789	AP104337	---
Sample Date	Client Info			16 Nov 2023	03 Jan 2017	---
Machine Age	kms	Client Info		230866	136334	---
Oil Age	kms	Client Info		0	0	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

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

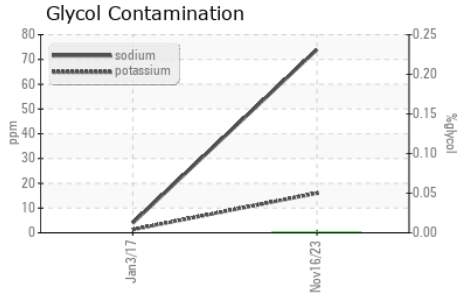
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	67	14	---
Chromium	ppm	ASTM D5185(m)	>5	3	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)	>2	0	0	---
Silver	ppm	ASTM D5185(m)	>2	0	1	---
Aluminum	ppm	ASTM D5185(m)	>15	3	2	---
Lead	ppm	ASTM D5185(m)	>25	6	2	---
Copper	ppm	ASTM D5185(m)	>100	75	4	---
Tin	ppm	ASTM D5185(m)	>4	<1	<1	---
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)		13	85	---
Barium	ppm	ASTM D5185(m)		0	<1	---
Molybdenum	ppm	ASTM D5185(m)		58	61	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)		928	732	---
Calcium	ppm	ASTM D5185(m)		1077	1365	---
Phosphorus	ppm	ASTM D5185(m)		984	1005	---
Zinc	ppm	ASTM D5185(m)		1185	1218	---
Sulfur	ppm	ASTM D5185(m)		2292	2690	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	12	---
Sodium	ppm	ASTM D5185(m)		74	4	---
Potassium	ppm	ASTM D5185(m)	>20	16	1	---
Fuel	%	ASTM D7593*	>3.0	0.7	<1.0	---
Glycol	%	ASTM D7922*		0.0	NEG	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	4.3	1.7	---
Nitration	Abs/cm	ASTM D7624*	>20	15.2	9.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	34.0	24.7	---

OIL ANALYSIS REPORT

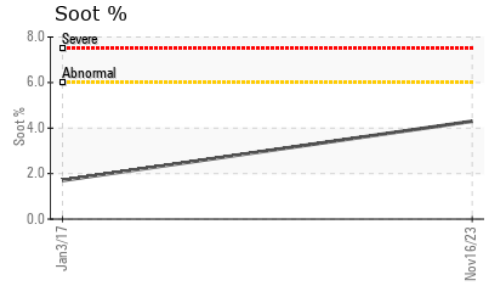
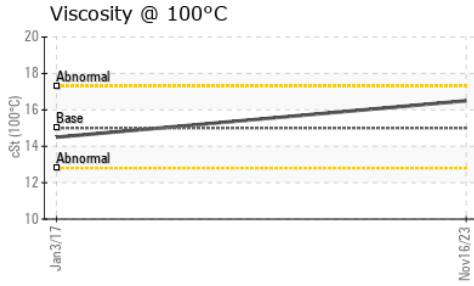
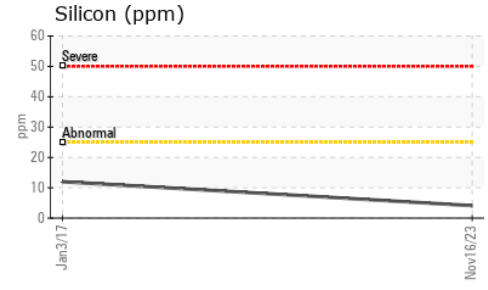
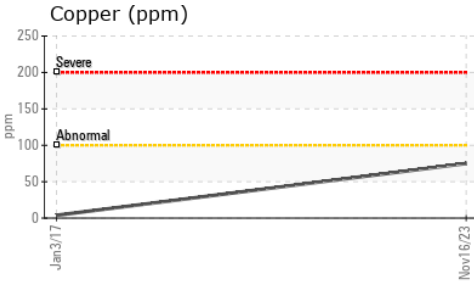
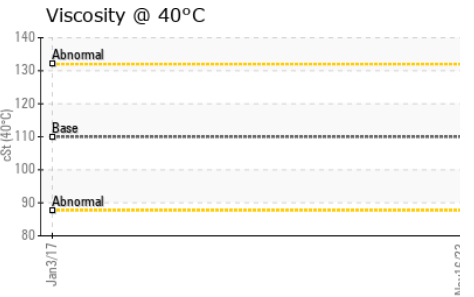
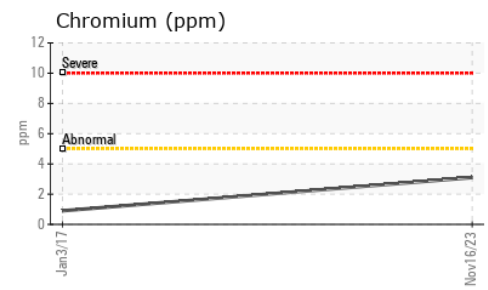
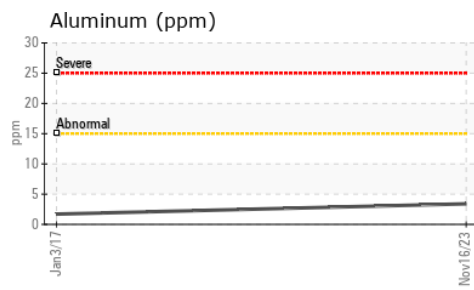
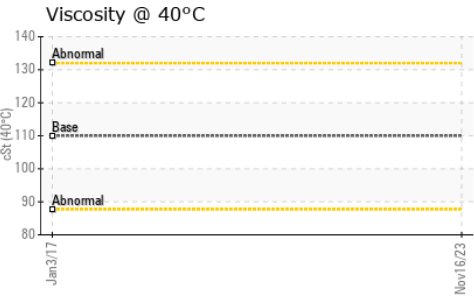
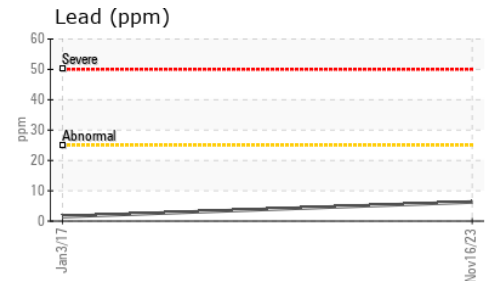
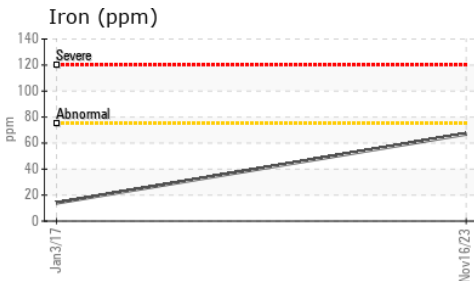
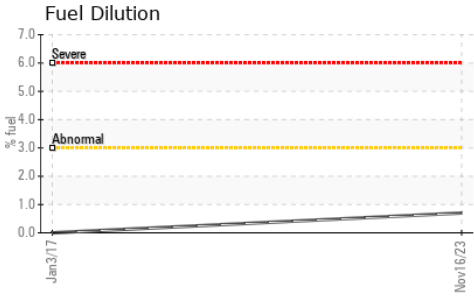


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	27.4	15.4	---

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)	110	126	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	16.5	14.5	---
Viscosity Index (VI)	Scale	ASTM D2270*	140	140	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083789
Lab Number : 02619143
Unique Number : 5736253
Test Package : MOB 1 (Additional Tests: FUELDILUTION, Glycol, KV40, PercentFuel, VI)

TORONTO FIRE SERVICES
 40 TORYORK DRIVE
 TORONTO, ON
 CA M9L 1X6

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.

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