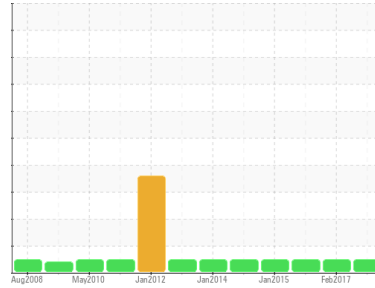


Machine Id
SPARTAN 24127/P146
Component
Right Diesel Engine
Fluid
CASTROL HYPURON 15W40 (20 LTR)



DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

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			PC0083790	AP103303	AP100891
Sample Date	Client Info			22 Nov 2023	02 Feb 2017	19 Jan 2016
Machine Age	kms	Client Info		13837	194388	172458
Oil Age	kms	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
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

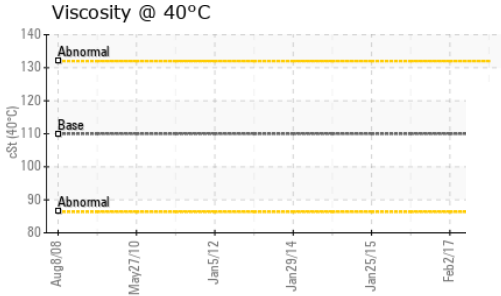
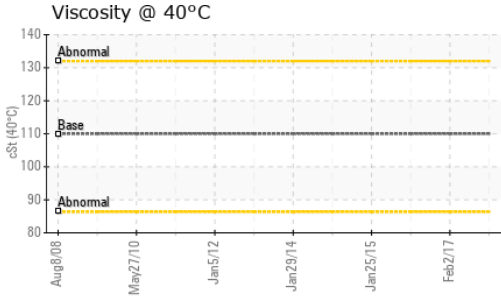
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	20	14	15
Chromium	ppm	ASTM D5185(m)	>5	1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>15	1	3	3
Lead	ppm	ASTM D5185(m)	>25	12	2	2
Copper	ppm	ASTM D5185(m)	>100	3	13	3
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	1	1
Vanadium	ppm	ASTM D5185(m)		0	0	0
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)		5	50	46
Barium	ppm	ASTM D5185(m)		<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)		64	<1	<1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		1023	9	12
Calcium	ppm	ASTM D5185(m)		1097	2518	2485
Phosphorus	ppm	ASTM D5185(m)		1000	1008	1013
Zinc	ppm	ASTM D5185(m)		1246	1256	1214
Sulfur	ppm	ASTM D5185(m)		2419	3498	3414
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	3	8
Sodium	ppm	ASTM D5185(m)		4	4	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.8	0.5	0.5
Nitration	Abs/cm	ASTM D7624*	>20	10.7	10.1	9.5
Sulfation	Abs.1mm	ASTM D7415*	>30	24.3	25.4	23.6

OIL ANALYSIS REPORT

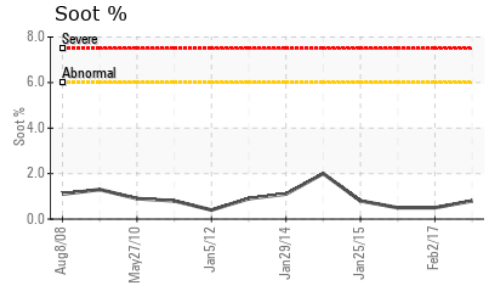
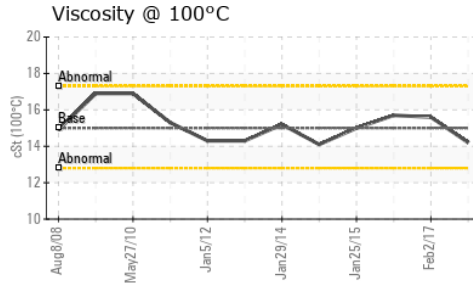
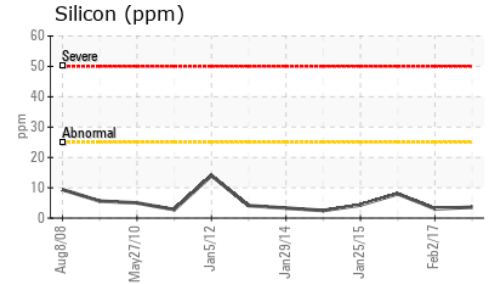
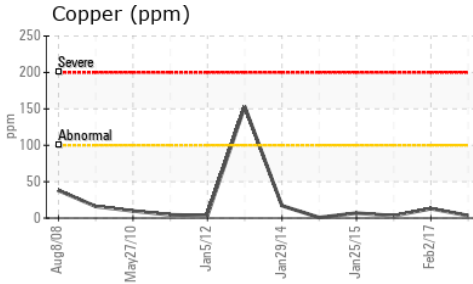
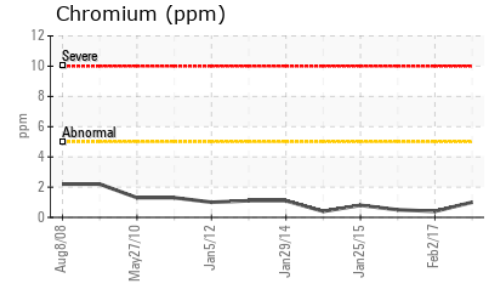
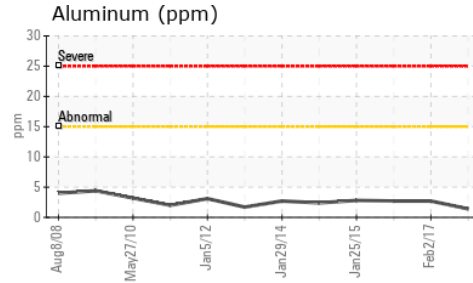
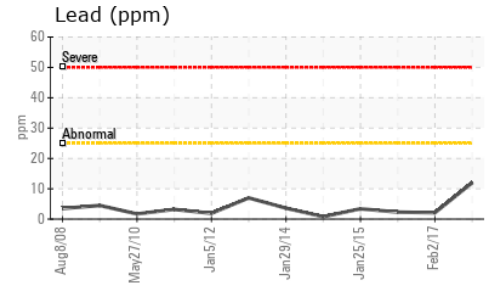
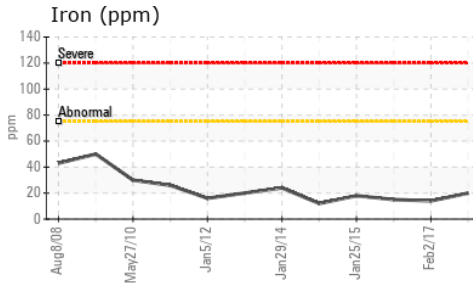


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	22.5	19.9	19.5

VISUAL		method	limit/base	current	history1	history2
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)	110	107	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	14.2	15.6	15.7
Viscosity Index (VI)	Scale	ASTM D2270*	140	134	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083790 **Received** : 15 Dec 2023
Lab Number : **02603428** **Diagnosed** : 15 Dec 2023
Unique Number : 5696513 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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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.