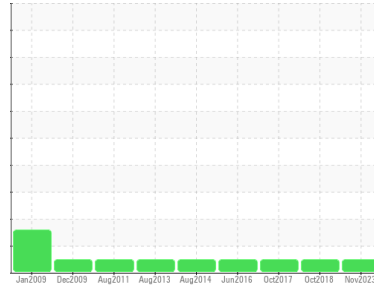


Machine Id
2007 SPARTAN 27034 A411

Component
Diesel Engine

Fluid
CASTROL HYPURON 15W40 (32 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		PC0075288	AP104578	AP107711
Sample Date	Client Info		05 Nov 2023	29 Oct 2018	24 Oct 2017
Machine Age	kms	Client Info	0	119873	100113
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		N/A	Changed	N/A
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) >90	41	30	44
Chromium	ppm	ASTM D5185(m) >4	2	<1	2
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	0	0
Aluminum	ppm	ASTM D5185(m) >15	2	2	3
Lead	ppm	ASTM D5185(m) >50	15	4	3
Copper	ppm	ASTM D5185(m) >55	3	1	2
Tin	ppm	ASTM D5185(m) >4	3	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	6	12	39
Barium	ppm	ASTM D5185(m)	<1	0	<1
Molybdenum	ppm	ASTM D5185(m)	64	58	7
Manganese	ppm	ASTM D5185(m)	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1002	909	12
Calcium	ppm	ASTM D5185(m)	1087	1167	2533
Phosphorus	ppm	ASTM D5185(m)	1019	986	1000
Zinc	ppm	ASTM D5185(m)	1248	1225	1234
Sulfur	ppm	ASTM D5185(m)	2512	2735	3405
Lithium	ppm	ASTM D5185(m)	<1	0	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	5	5	21
Sodium	ppm	ASTM D5185(m)	3	13	5
Potassium	ppm	ASTM D5185(m) >20	<1	3	2

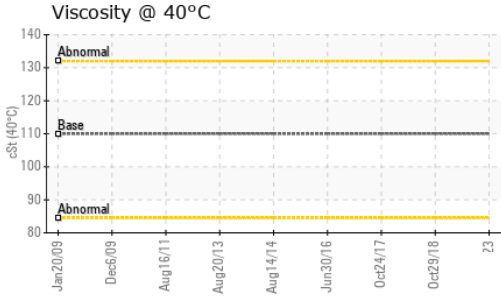
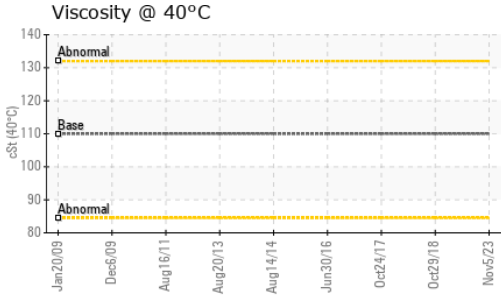
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	1.9	1.9	2.2
Nitration	Abs/cm	ASTM D7624* >20	11.5	10.2	11.1
Sulfation	Abs/.1mm	ASTM D7415* >30	25.4	24.9	29.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	19.8	17.3	17.8

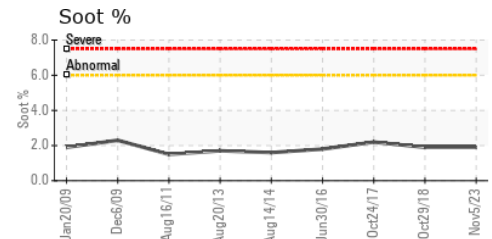
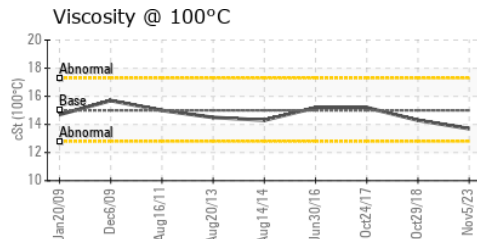
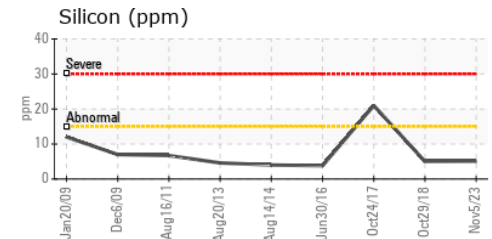
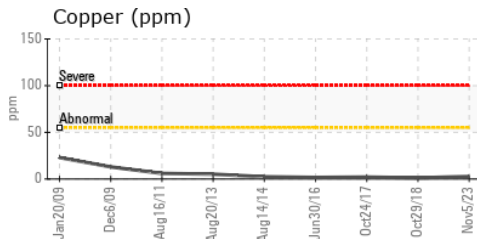
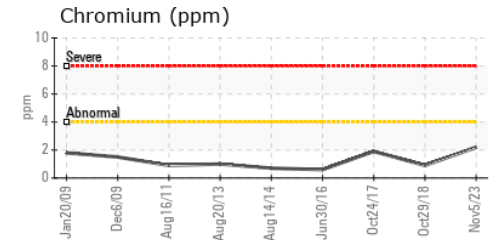
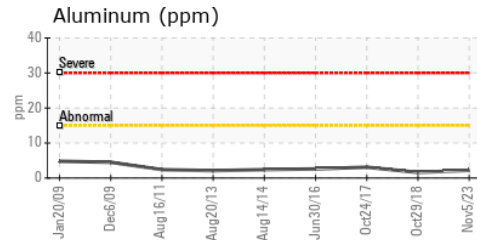
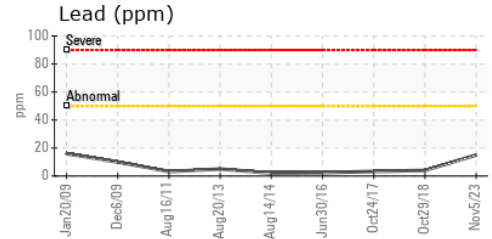
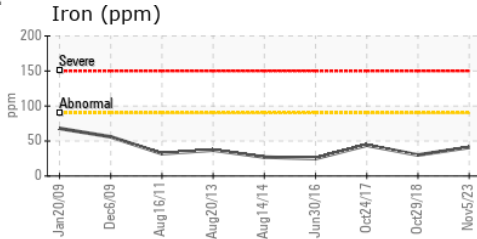
OIL ANALYSIS REPORT



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	---
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	101	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	13.7	14.3
Viscosity Index (VI)	Scale	ASTM D2270*	140	136	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075288 **Received** : 06 Nov 2023
Lab Number : 02594138 **Diagnosed** : 06 Nov 2023
Unique Number : 5671217 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

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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.