



OIL ANALYSIS REPORT

Sample Rating Trend

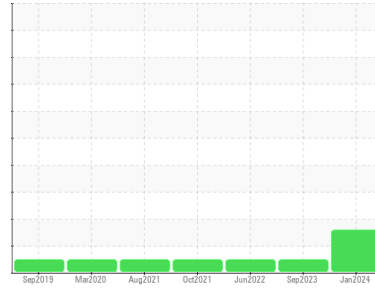
DEGRADATION

Area
[42824246]

Machine Id
9488

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted.

Wear

All component wear rates are normal.

Contamination

There is an abnormal level of sulfation indicated.

Fluid Condition

A small degree of oil oxidation was indicated. The oil is no longer serviceable.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0853190	WC0853359	WC0703092
Sample Date	Client Info		06 Jan 2024	24 Sep 2023	22 Jun 2022
Machine Age	kms	Client Info	0	416816	265052
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			ABNORMAL	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)	>90	40	53	42
Chromium	ppm	ASTM D5185(m)	>20	2	2	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	4	8	5
Lead	ppm	ASTM D5185(m)	>40	6	7	7
Copper	ppm	ASTM D5185(m)	>330	3	2	4
Tin	ppm	ASTM D5185(m)	>15	<1	<1	2
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	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	250	29	31	24
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	2	6	3
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	681	719	688
Calcium	ppm	ASTM D5185(m)	3000	1238	1309	1372
Phosphorus	ppm	ASTM D5185(m)	1150	649	685	668
Zinc	ppm	ASTM D5185(m)	1350	716	769	775
Sulfur	ppm	ASTM D5185(m)	4250	2416	2377	2478
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

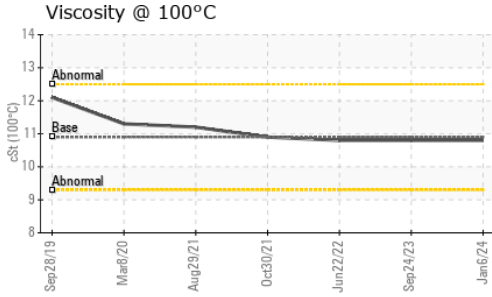
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	5	6	6
Sodium	ppm	ASTM D5185(m)		3	4	4
Potassium	ppm	ASTM D5185(m)	>20	4	16	9

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	0.4	0.5	0.3
Nitration	Abs/cm	ASTM D7624*	>20	14.8	14.1	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	▲ 31.5	29.4	27.2

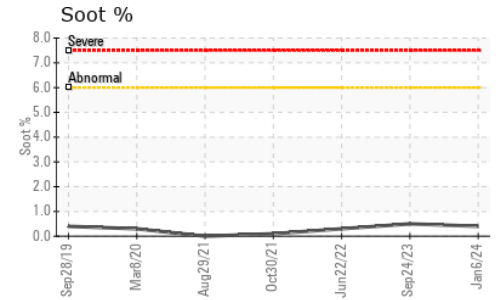
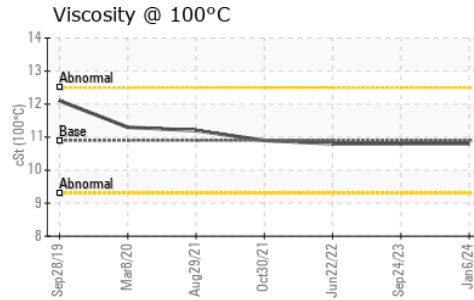
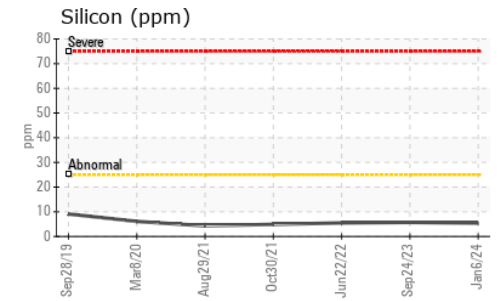
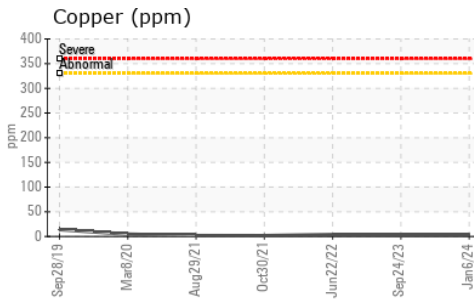
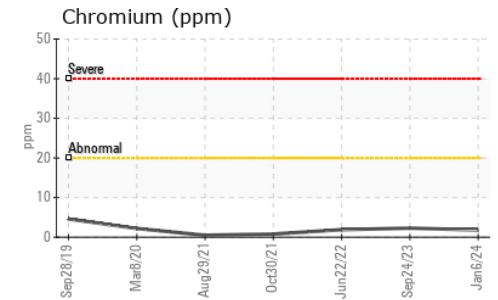
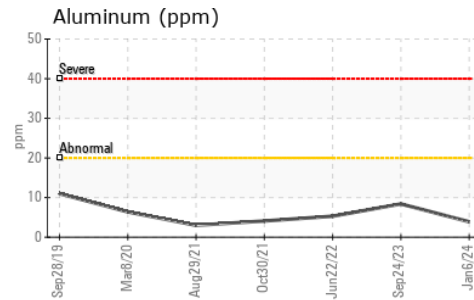
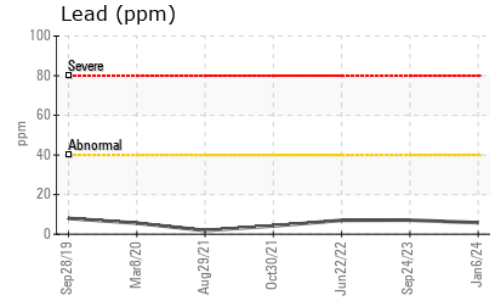
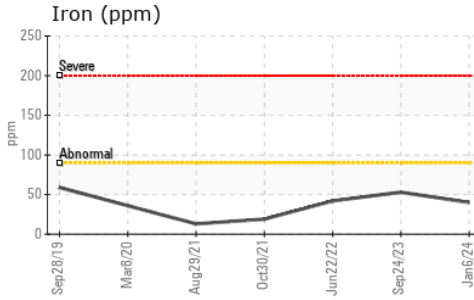


OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	▲ 35.5	30.0	21.9
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 @ 100°C	cSt	ASTM D7279(m)	10.9	10.8	10.8	10.8

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC0853190 Received : 09 Jan 2024
 Lab Number : 02607437 Diagnosed : 10 Jan 2024
 Unique Number : 5708523 Diagnostician : Kevin Marson
 Test Package : MOB 1

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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.