



OIL ANALYSIS REPORT

Sample Rating Trend

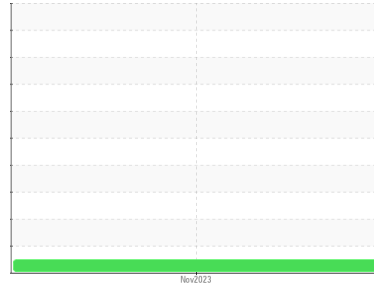
NORMAL



Machine Id
#1707 - GRAND MARAIS PUMP STATION

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)



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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0876637	---	---
Sample Date	Client Info		21 Nov 2023	---	---
Machine Age	hrs	Client Info	505	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Not Chngd	---	---
Sample Status			NORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---
Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	47	---	---
Chromium	ppm	ASTM D5185(m) >20	1	---	---
Nickel	ppm	ASTM D5185(m) >4	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m) >3	<1	---	---
Aluminum	ppm	ASTM D5185(m) >20	3	---	---
Lead	ppm	ASTM D5185(m) >40	9	---	---
Copper	ppm	ASTM D5185(m) >330	284	---	---
Tin	ppm	ASTM D5185(m) >15	2	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 250	16	---	---
Barium	ppm	ASTM D5185(m) 10	<1	---	---
Molybdenum	ppm	ASTM D5185(m) 100	0	---	---
Manganese	ppm	ASTM D5185(m)	<1	---	---
Magnesium	ppm	ASTM D5185(m) 450	8	---	---
Calcium	ppm	ASTM D5185(m) 3000	2529	---	---
Phosphorus	ppm	ASTM D5185(m) 1150	945	---	---
Zinc	ppm	ASTM D5185(m) 1350	1204	---	---
Sulfur	ppm	ASTM D5185(m) 4250	3167	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

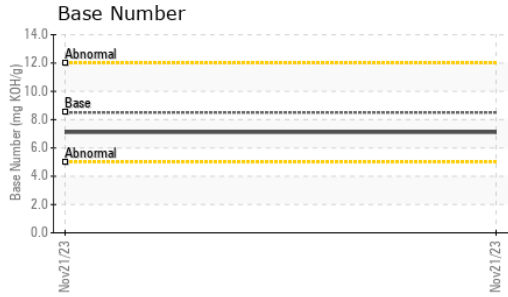
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	5	---	---
Sodium	ppm	ASTM D5185(m) >158	3	---	---
Potassium	ppm	ASTM D5185(m) >20	5	---	---

INFRA-RED

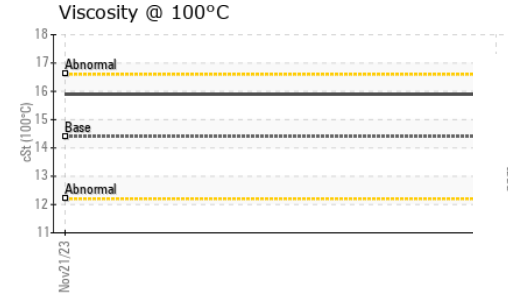
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.6	---	---
Nitration	Abs/cm	ASTM D7624* >20	8.8	---	---
Sulfation	Abs/.1mm	ASTM D7415* >30	21.7	---	---



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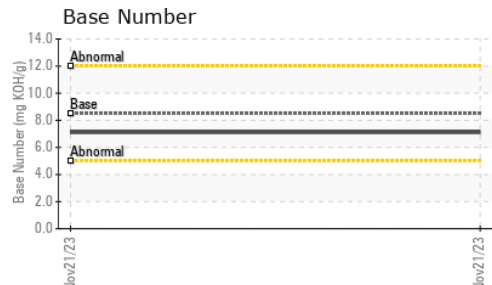
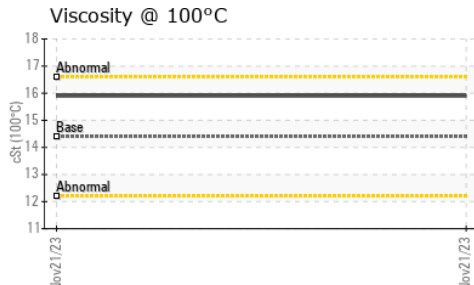
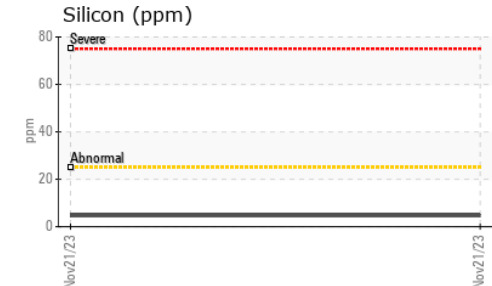
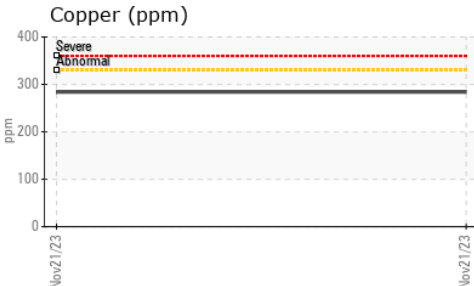
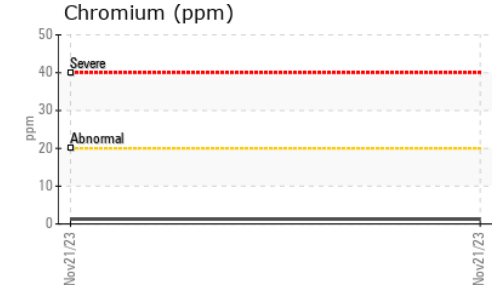
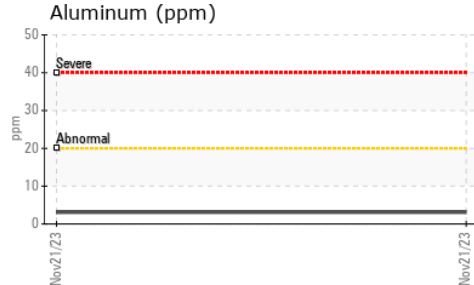
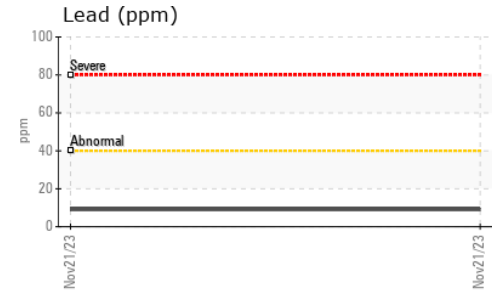
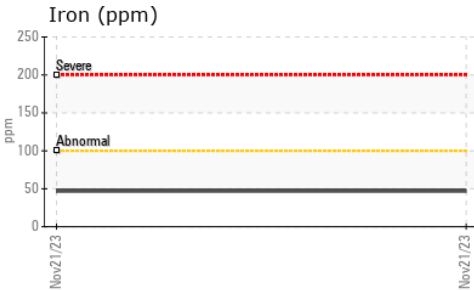
FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	7.11	---	---



VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	15.9	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0876637 **Received** : 07 Dec 2023
Lab Number : **02601454** **Diagnosed** : 08 Dec 2023
Unique Number : 5694539 **Diagnostician** : Wes Davis
Test Package : MOB 2

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 Amherstburg, ON
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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.