



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
2982
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0844179	---	---
Sample Date		Client Info		02 Apr 2024	---	---
Machine Age	hrs	Client Info		771	---	---
Oil Age	hrs	Client Info		450	---	---
Filter Age	hrs	Client Info		450	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	95	---	---
Chromium	ppm	ASTM D5185m	>20	3	---	---
Nickel	ppm	ASTM D5185m	>4	1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	21	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	65	---	---
Tin	ppm	ASTM D5185m	>15	1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

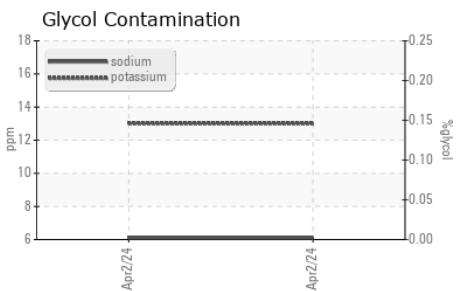
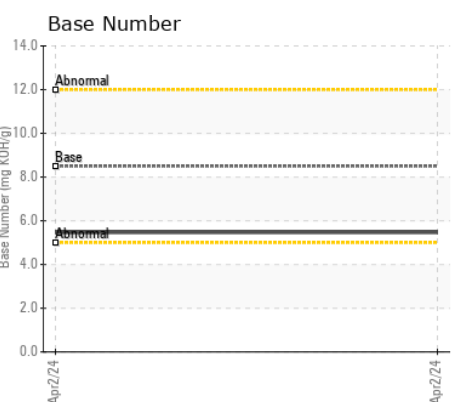
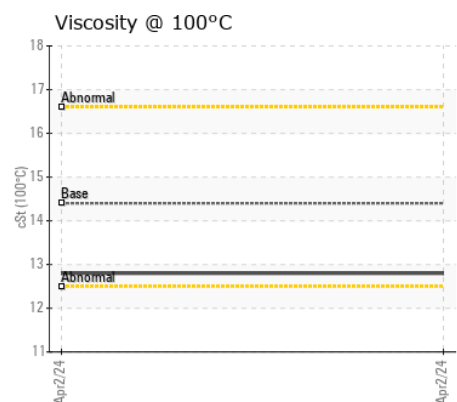
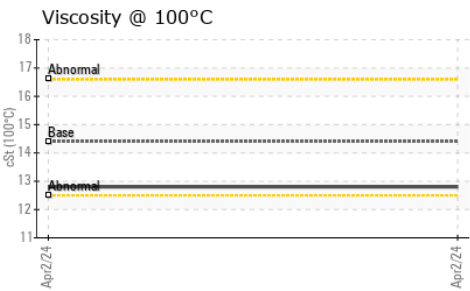
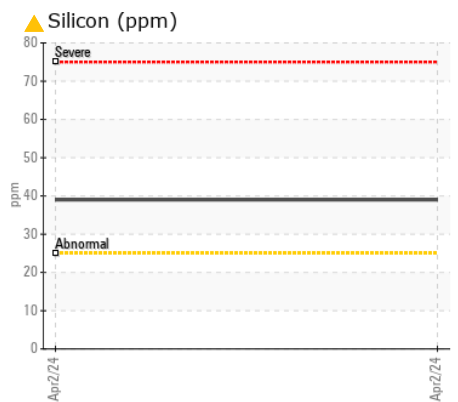
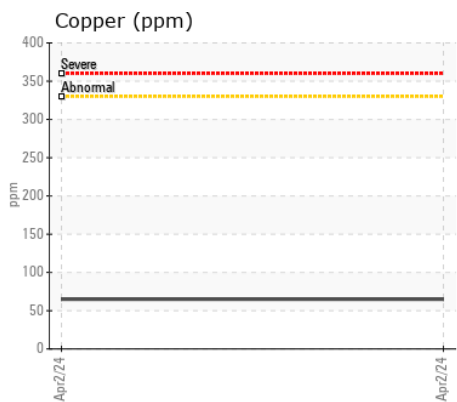
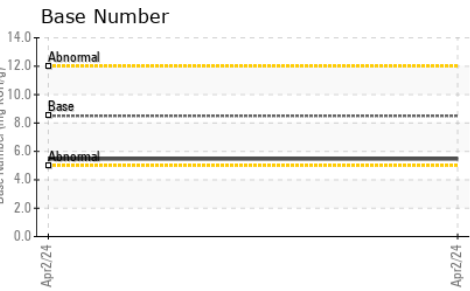
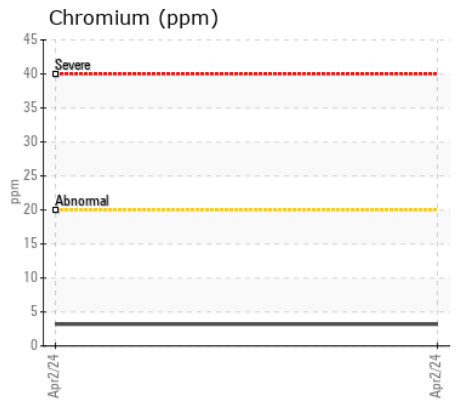
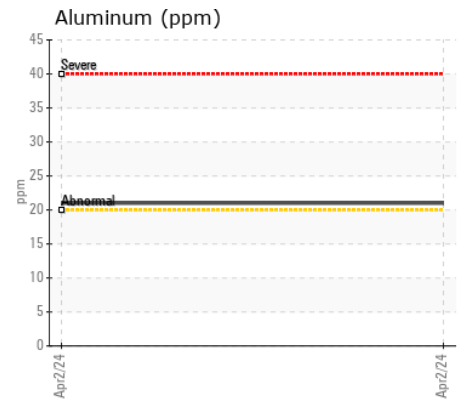
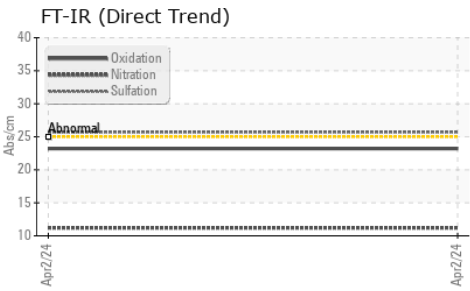
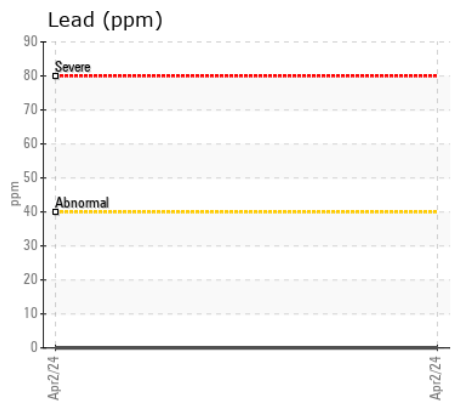
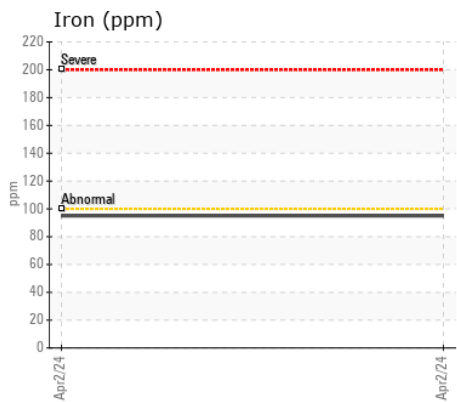
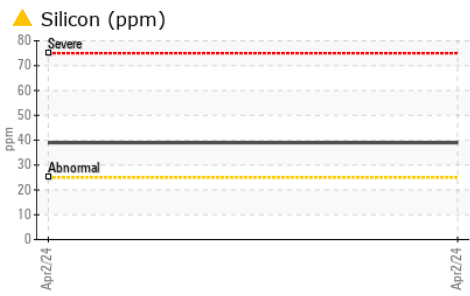
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>25	▲ 39	---	---
Potassium	ppm	ASTM D5185m	>20	13	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	---	---
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	---	---

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.

Sodium	ppm	ASTM D5185m	>158	6	---	---
Boron	ppm	ASTM D5185m	250	105	---	---
Barium	ppm	ASTM D5185m	10	4	---	---
Molybdenum	ppm	ASTM D5185m	100	104	---	---
Manganese	ppm	ASTM D5185m		8	---	---
Magnesium	ppm	ASTM D5185m	450	671	---	---
Calcium	ppm	ASTM D5185m	3000	1449	---	---
Phosphorus	ppm	ASTM D5185m	1150	690	---	---
Zinc	ppm	ASTM D5185m	1350	818	---	---
Sulfur	ppm	ASTM D5185m	4250	2673	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.47	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0844179 **Received** : 17 Jun 2024
Lab Number : 06211943 **Tested** : 19 Jun 2024
Unique Number : 11084807 **Diagnosed** : 19 Jun 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: Glycol, TAN Man)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)