



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL



Machine Id
CATERPILLAR 980H 2231005
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0088721	PC0065455	---
Sample Date		Client Info		30 Apr 2024	02 Nov 2022	---
Machine Age	hrs	Client Info		21133	20242	---
Oil Age	hrs	Client Info		300	250	---
Filter Age	hrs	Client Info		300	250	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	15	19	---
Chromium	ppm	ASTM D5185(m)	>20	0	<1	---
Nickel	ppm	ASTM D5185(m)	>2	0	0	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	0	0	---
Aluminum	ppm	ASTM D5185(m)	>25	<1	2	---
Lead	ppm	ASTM D5185(m)	>40	4	5	---
Copper	ppm	ASTM D5185(m)	>330	130	151	---
Tin	ppm	ASTM D5185(m)	>15	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

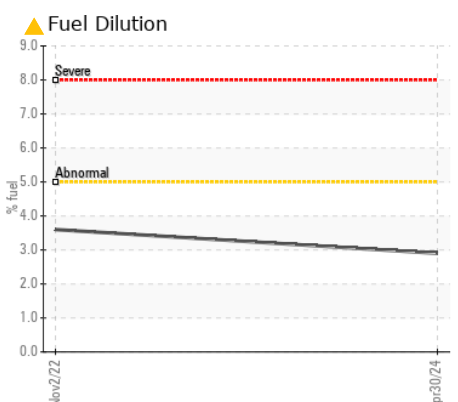
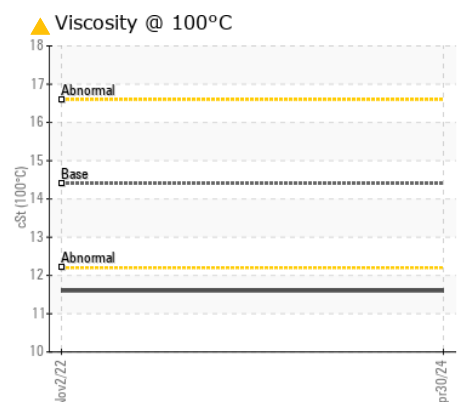
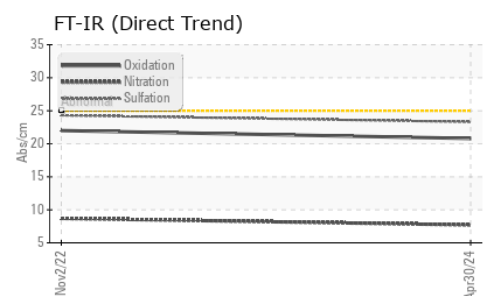
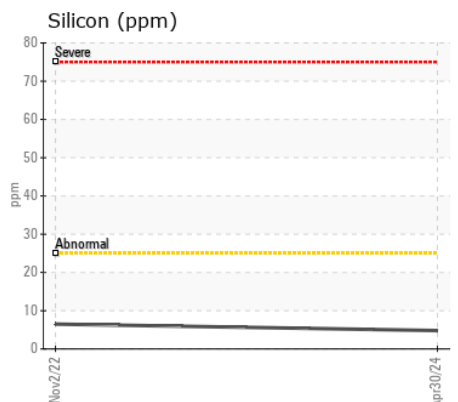
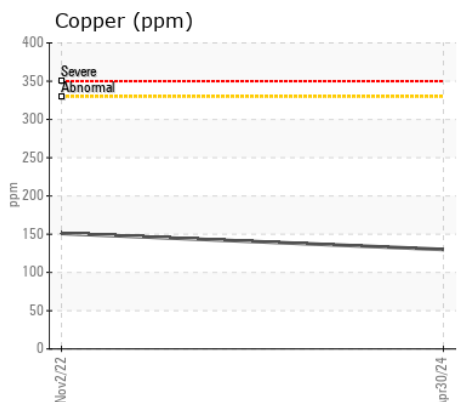
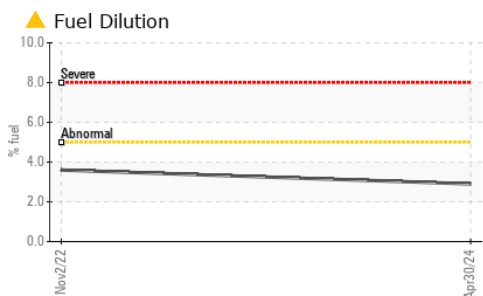
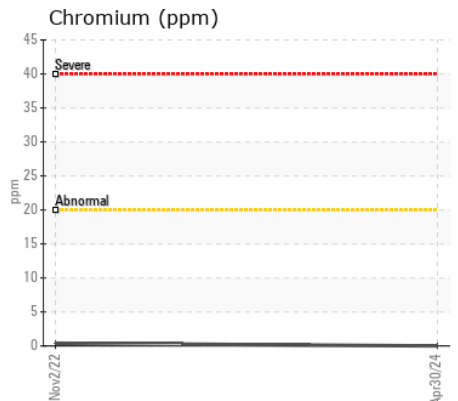
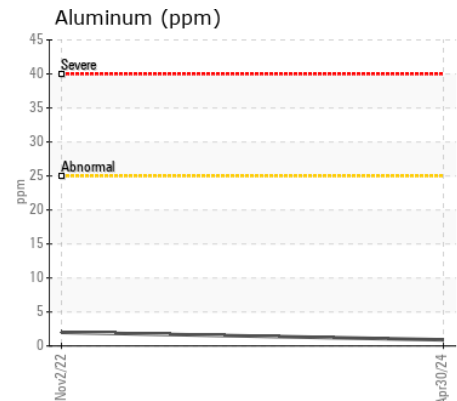
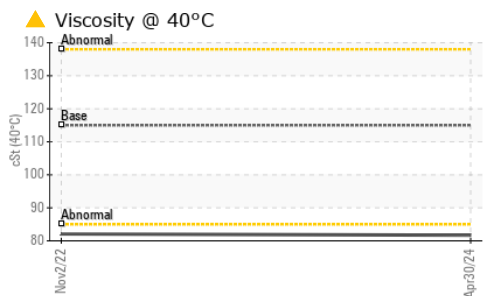
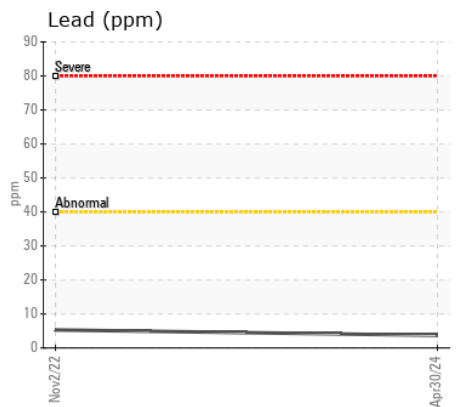
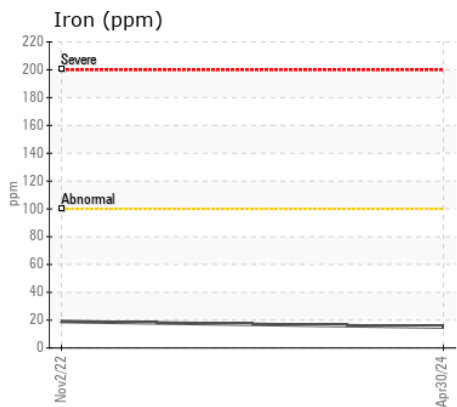
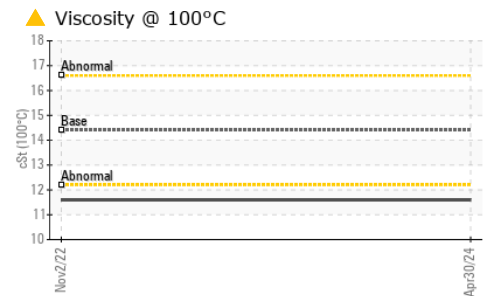
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	6	---
Potassium	ppm	ASTM D5185(m)	>20	<1	1	---
Fuel	%	ASTM D7593*	>5	▲ 2.9	▲ 3.6	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.2	0.3	---
Nitration	Abs/cm	ASTM D7624*	>20	7.7	8.7	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.3	24.3	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>158	2	3	---
Boron	ppm	ASTM D5185(m)	250	39	49	---
Barium	ppm	ASTM D5185(m)	10	0	0	---
Molybdenum	ppm	ASTM D5185(m)	100	41	33	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)	450	509	441	---
Calcium	ppm	ASTM D5185(m)	3000	1630	1763	---
Phosphorus	ppm	ASTM D5185(m)	1150	710	762	---
Zinc	ppm	ASTM D5185(m)	1350	848	838	---
Sulfur	ppm	ASTM D5185(m)	4250	1994	2122	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.8	22.0	---
Visc @ 40°C	cSt	ASTM D7279(m)	115	▲ 81.7	▲ 82.1	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 11.6	▲ 11.6	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	133	132	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0088721 **Received** : 03 May 2024
Lab Number : 02633062 **Tested** : 06 May 2024
Unique Number : 5774215 **Diagnosed** : 06 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FUELDILUTION, KV40, PercentFuel, 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.