



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
37 KNIGHTSWOOD
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0914911	WC0555436	WC0343368
Sample Date		Client Info		24 Apr 2024	31 Mar 2021	27 May 2019
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		0	1	0
Filter Age	yrs	Client Info		0	1	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	2	<1	4
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	<1	1
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	<1	4
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE

CONTAMINATION

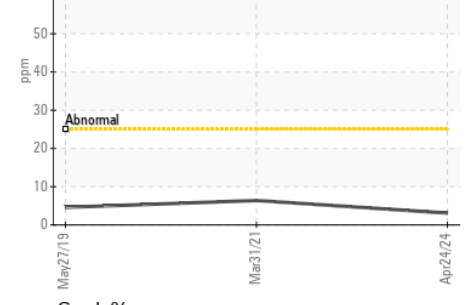
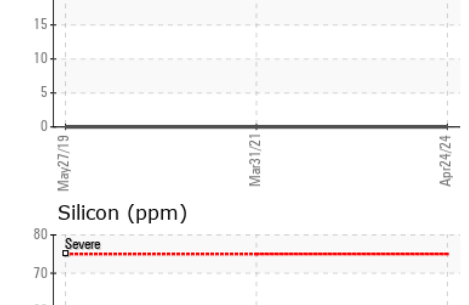
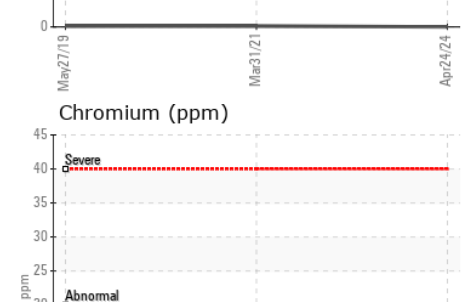
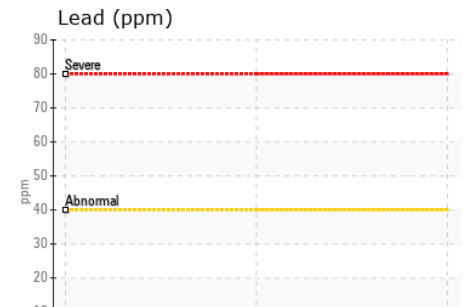
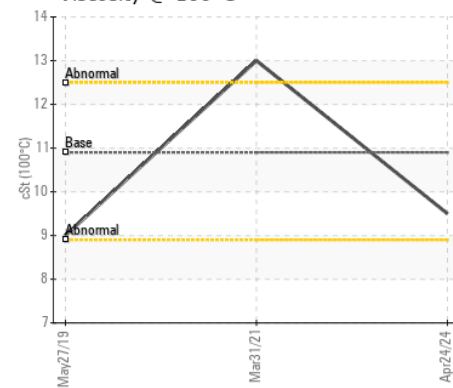
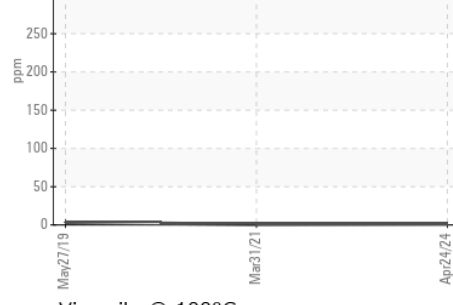
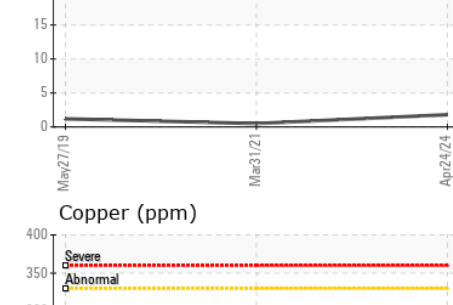
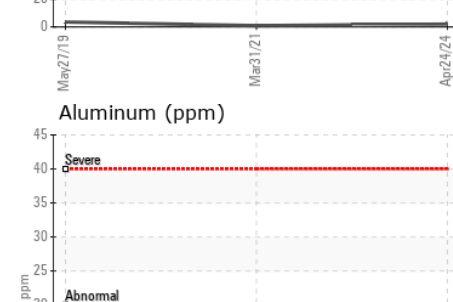
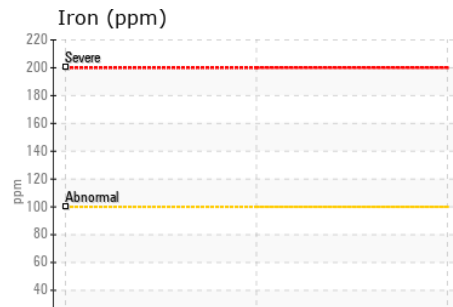
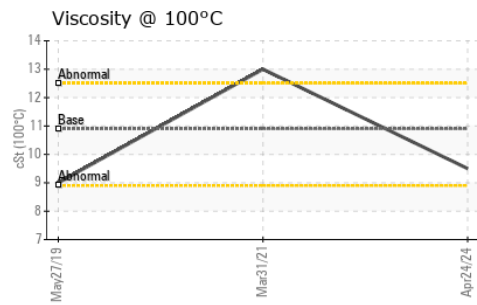
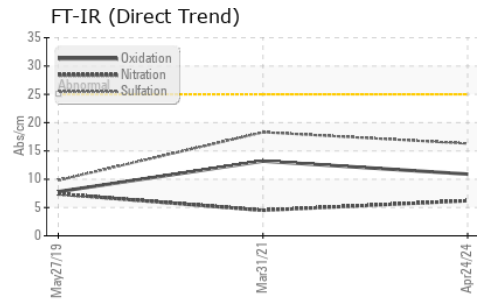
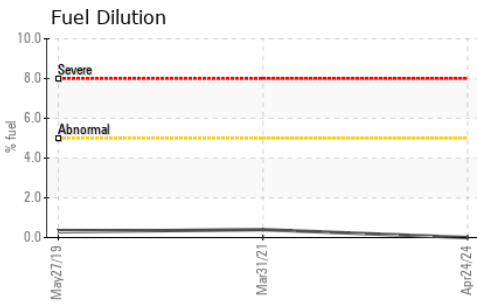
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	6	5
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>5	0.0	0.4	0.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	▲ 0.12
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.2	4.5	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	16.3	18.3	9.8
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	▲ MILKY
Odor	scalar	Visual*	NORML	NORML	---	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	▲ .2%

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		6	2	6
Boron	ppm	ASTM D5185(m)	250	73	13	67
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	75	70	127
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	680	904	36
Calcium	ppm	ASTM D5185(m)	3000	1065	1058	1575
Phosphorus	ppm	ASTM D5185(m)	1150	655	1019	548
Zinc	ppm	ASTM D5185(m)	1350	745	1146	668
Sulfur	ppm	ASTM D5185(m)	4250	1719	2667	1638
Oxidation	Abs/.1mm	ASTM D7414*	>25	10.9	13.2	7.8
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	9.5	13.0	▲ 9.0



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0914911
Lab Number : 02633010
Unique Number : 5774163
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual)

Received : 03 May 2024
Tested : 06 May 2024
Diagnosed : 06 May 2024 - Kevin Marson

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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.