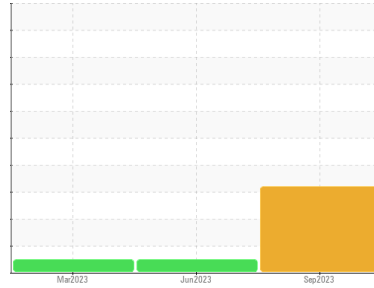




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
KUBOTA RTV900 MCP728

Component
Diesel Engine

Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

Aluminum and iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Piston wear is indicated.

Contamination

There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0848134	WC0650149	WC
Sample Date	Client Info	29 Sep 2023	14 Jun 2023	02 Mar 2023
Machine Age	hrs	3502	3015	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	Changed	N/A
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	41	---	---
Iron	ppm ASTM D5185(m) >100	▲ 103	44	62
Chromium	ppm ASTM D5185(m) >20	3	2	2
Nickel	ppm ASTM D5185(m) >4	<1	0	0
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m) >3	<1	0	0
Aluminum	ppm ASTM D5185(m) >20	▲ 24	16	18
Lead	ppm ASTM D5185(m) >40	<1	<1	<1
Copper	ppm ASTM D5185(m) >330	2	<1	2
Tin	ppm ASTM D5185(m) >15	0	0	<1
Antimony	ppm ASTM D5185(m)	0	0	0
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) 0	36	6	35
Barium	ppm ASTM D5185(m) 0	<1	<1	0
Molybdenum	ppm ASTM D5185(m) 60	44	58	111
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	554	923	965
Calcium	ppm ASTM D5185(m) 1070	1787	1138	1270
Phosphorus	ppm ASTM D5185(m) 1150	756	1029	1053
Zinc	ppm ASTM D5185(m) 1270	924	1173	1218
Sulfur	ppm ASTM D5185(m) 2060	2022	2449	2617
Lithium	ppm ASTM D5185(m)	<1	1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	▲ 35	24	11
Sodium	ppm ASTM D5185(m)	8	5	5
Potassium	ppm ASTM D5185(m) >20	6	3	2
Glycol	% ASTM D7922*	0.0	NEG	NEG

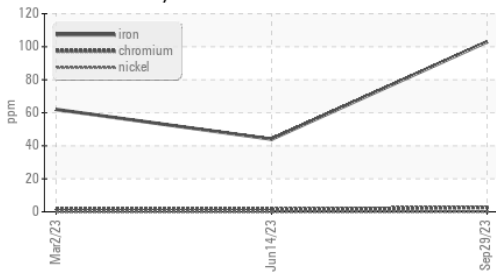
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	1.1	1	1
Nitration	Abs/cm ASTM D7624* >20	9.7	8.6	8.4
Sulfation	Abs./1mm ASTM D7415* >30	25.3	21.3	23.0

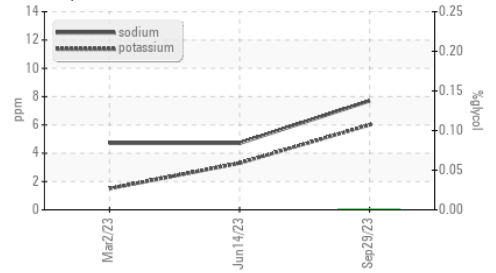


OIL ANALYSIS REPORT

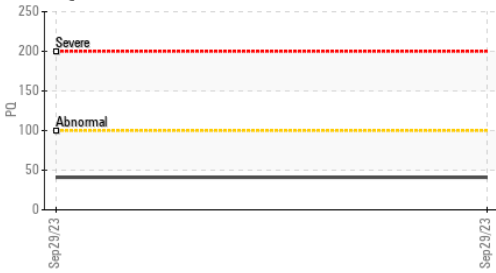
▲ Ferrous Alloys



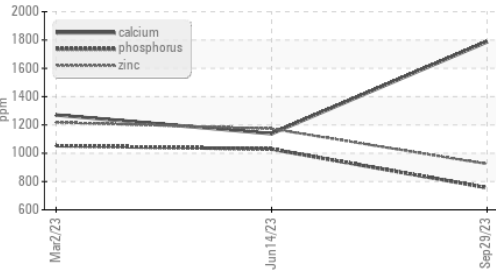
▲ Glycol Contamination



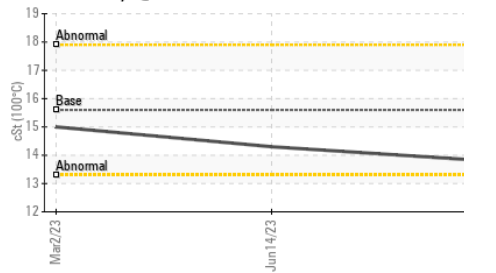
▲ PQ



▲ Additives



▲ Viscosity @ 100°C



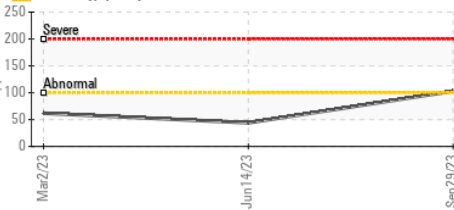
FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	23.1	16.7	13.2

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	VLITE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	NONE	---
Silt	scalar	Visual*	NONE	VLITE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

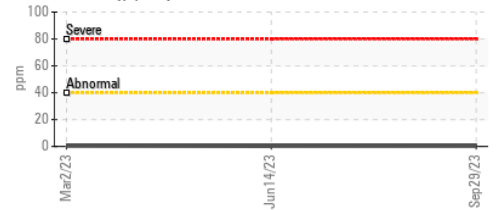
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.8	14.3	15.0

GRAPHS

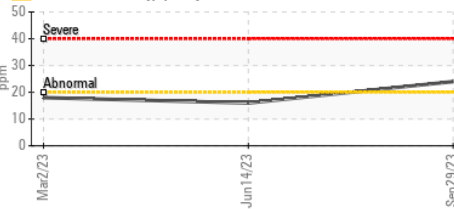
▲ Iron (ppm)



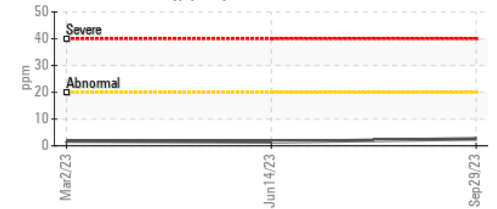
▲ Lead (ppm)



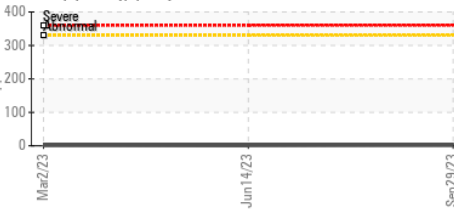
▲ Aluminum (ppm)



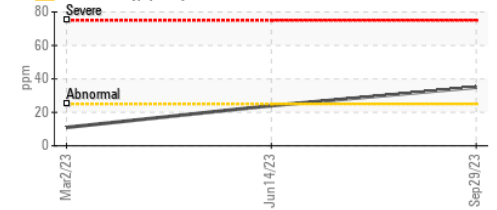
▲ Chromium (ppm)



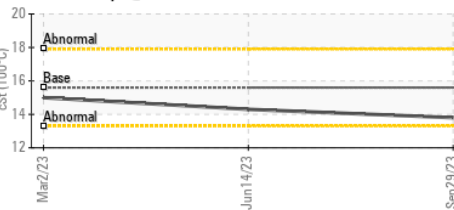
▲ Copper (ppm)



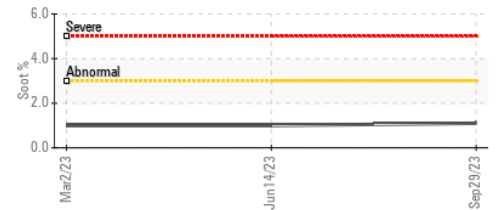
▲ Silicon (ppm)



▲ Viscosity @ 100°C



▲ Soot %



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0848134
Lab Number : 02588594
Unique Number : 5657660
Test Package : MOB 1 (Additional Tests: Glycol, PQ, Visual)

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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.