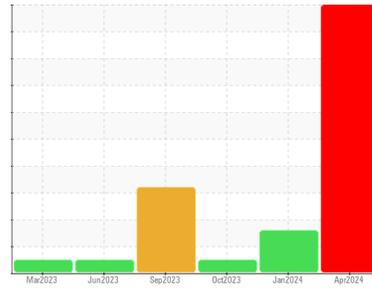




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KUBOTA RTV900 MCP728**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1200 SP15W40 (--- 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 advise that you flush the component thoroughly before re-filling with oil. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

Aluminum and iron ppm levels are severe. PQ levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Piston wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

### Contamination

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

### Fluid Condition

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			<b>WC0861420</b>	WC0892434	WC0848125
Sample Date	Client Info			<b>08 Apr 2024</b>	22 Jan 2024	18 Oct 2023
Machine Age	hrs	Client Info		<b>4177</b>	3897	3572
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	Changed
Sample Status				<b>SEVERE</b>	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		<b>▲ 146</b>	---	---
Iron	ppm	ASTM D5185(m)	>100	<b>▲ 489</b>	30	42
Chromium	ppm	ASTM D5185(m)	>20	<b>6</b>	1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>3</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>▲ 96</b>	11	14
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>11</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>37</b>	44	46
Barium	ppm	ASTM D5185(m)		<b>3</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>42</b>	41	42
Manganese	ppm	ASTM D5185(m)		<b>5</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>552</b>	527	511
Calcium	ppm	ASTM D5185(m)		<b>1964</b>	1751	1758
Phosphorus	ppm	ASTM D5185(m)		<b>780</b>	742	740
Zinc	ppm	ASTM D5185(m)		<b>951</b>	868	876
Sulfur	ppm	ASTM D5185(m)		<b>2105</b>	2141	2043
Lithium	ppm	ASTM D5185(m)		<b>1</b>	<1	<1

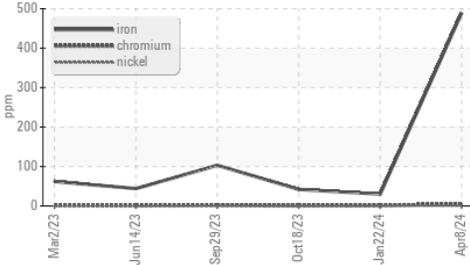
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>▲ 136</b>	▲ 26	18
Sodium	ppm	ASTM D5185(m)		<b>47</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>32</b>	3	2
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>1.2</b>	0.7	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.0</b>	8.5	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.0</b>	24.4	22.4

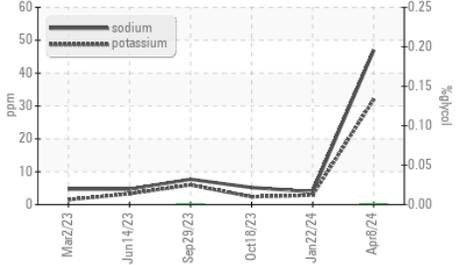


# OIL ANALYSIS REPORT

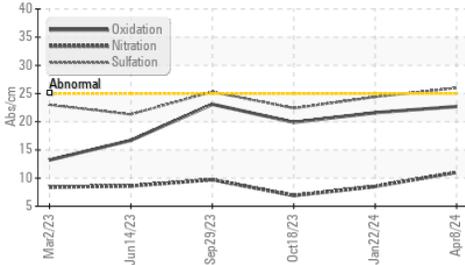
## ▲ Ferrous Alloys



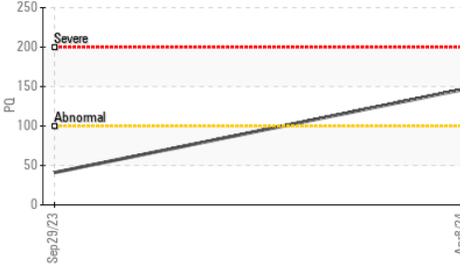
## Glycol Contamination



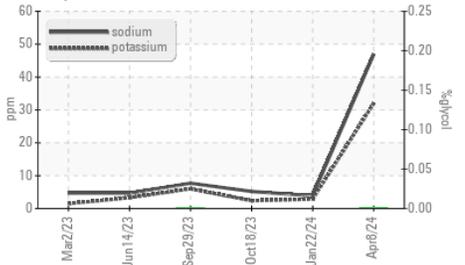
## FT-IR (Direct Trend)



## ▲ PQ



## Glycol Contamination



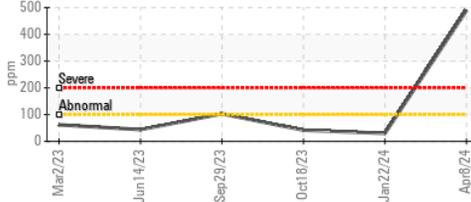
FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	22.7	21.6	19.9

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
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	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

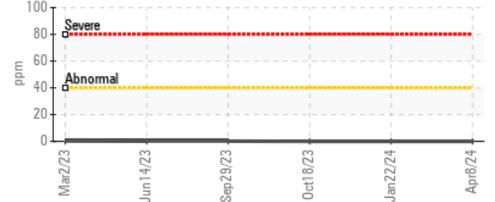
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	14.5	13.9	13.8

## GRAPHS

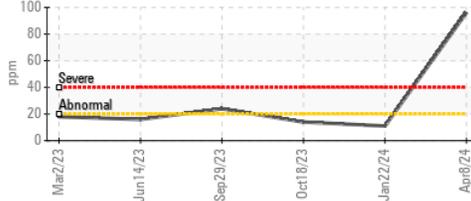
### ▲ Iron (ppm)



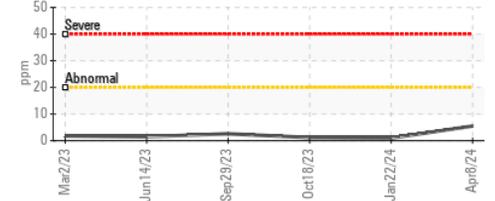
### Lead (ppm)



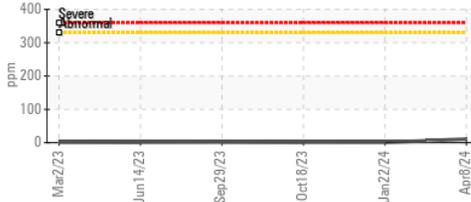
### ▲ Aluminum (ppm)



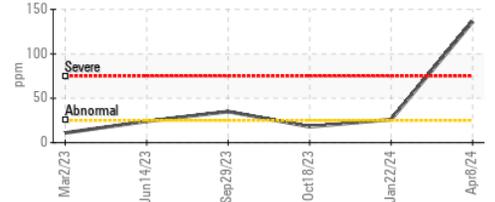
### Chromium (ppm)



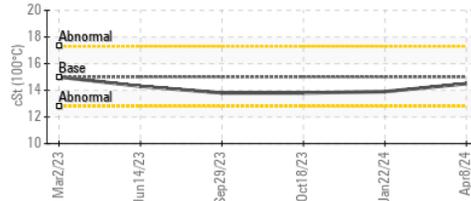
### Copper (ppm)



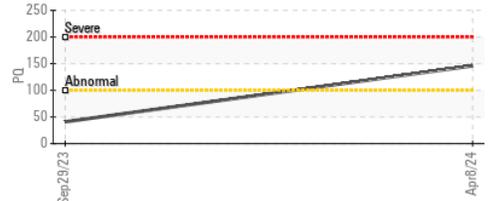
### ▲ Silicon (ppm)



### Viscosity @ 100°C



### ▲ PQ



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0861420  
**Lab Number** : 02627795  
**Unique Number** : 5760927  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PQ, Visual )  
**Received** : 10 Apr 2024  
**Tested** : 10 Apr 2024  
**Diagnosed** : 10 Apr 2024 - Kevin Marson

**Agnico Eagle Canada**  
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 T: (705)567-5208  
 F: (705)567-5221

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.