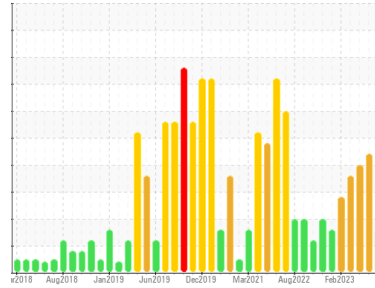




# PROBLEM SUMMARY

## Sample Rating Trend

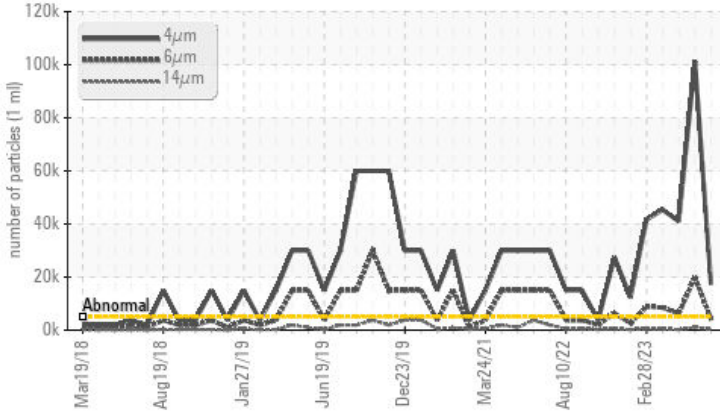
ISO



Area  
**RHOB/HYDRAULICS**  
 Machine Id  
**E - 2 Hydraulics Repair Car**  
 Component  
**Tank Hydraulic System**  
 Fluid  
**FIRE-RESISTANT FLUID ISO 46 (132 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	SEVERE	SEVERE
Particles >4µm	ASTM D7647	>5000	▲ <b>17365</b>	● 101265	● 40944
Particles >6µm	ASTM D7647	>1300	▲ <b>4201</b>	● 20011	▲ 6241
Particles >14µm	ASTM D7647	>160	▲ <b>245</b>	▲ 1043	▲ 234
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ <b>21/19/15</b>	● 24/22/17	● 23/20/15

Customer Id: LEWBOSC  
 Sample No.: WC0850109  
 Lab Number: 02576289  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

## HISTORICAL DIAGNOSIS

### 13 Jul 2023 Diag: Kevin Marson

ISO



We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



### 20 Jun 2023 Diag: Kevin Marson

COOL CHEMICALS



Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid.

view report



### 31 May 2023 Diag: Kevin Marson

WEAR



We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Copper ppm levels are abnormal. A sharp increase in the copper level is noted. Oil cooler core leaching or motor piston wear is indicated. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

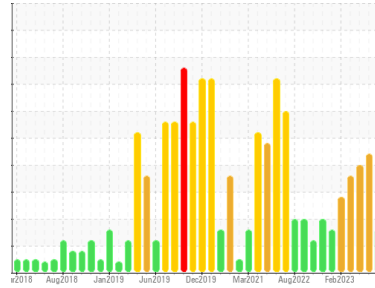
view report





# COOLANT REPORT

Sample Rating Trend



ISO



Area  
**RHOB/HYDRAULICS**  
 Machine Id  
**E - 2 Hydraulics Repair Car**  
 Component  
**Tank Hydraulic System**  
 Fluid  
**FIRE-RESISTANT FLUID ISO 46 (132 GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0850109</b>	WC0838977	WC0832564
Sample Date	Client Info	<b>16 Aug 2023</b>	13 Jul 2023	20 Jun 2023
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	SEVERE	SEVERE

## CORROSION INHIBITORS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Phosphorus	ppm	ASTM D5185(m)	175	<b>0</b>	0
Boron	ppm	ASTM D5185(m)	5	<b>0</b>	<1
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	1

## CORROSION

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	0
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0
Zinc	ppm	ASTM D5185(m)	>125	<b>0</b>	0

## CONTAMINANTS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>5000	<b>▲ 17365</b>	● 101265	● 40944
Particles >6µm	ASTM D7647	>1300	<b>▲ 4201</b>	● 20011	▲ 6241
Particles >14µm	ASTM D7647	>160	<b>▲ 245</b>	▲ 1043	▲ 234
Particles >21µm	ASTM D7647	>40	<b>49</b>	▲ 238	55
Particles >38µm	ASTM D7647	>10	<b>6</b>	7	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 21/19/15</b>	● 24/22/17	● 23/20/15

## CARRIER SALTS

method	limit/base	current	history1	history2	
Sodium	ppm	ASTM D5185(m)		<b>163</b>	104
Potassium	ppm	ASTM D5185(m)		<b>0</b>	0

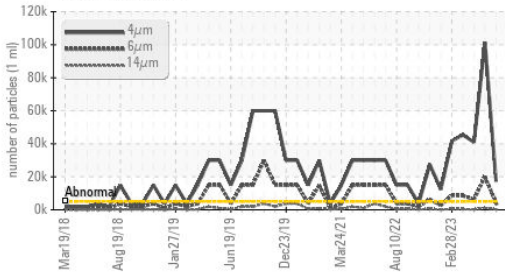
## SCALE POTENTIAL

method	limit/base	current	history1	history2	
Calcium	ppm	ASTM D5185(m)	>100	<b>2</b>	<1
Magnesium	ppm	ASTM D5185(m)	>10	<b>0</b>	<1



# COOLANT REPORT

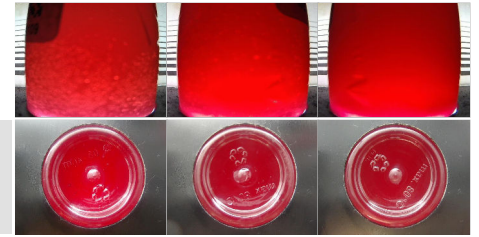
### Particle Trend



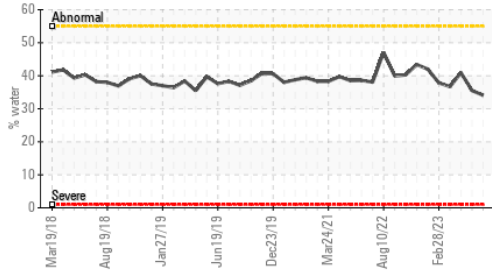
### VISUAL

Color

Bottom

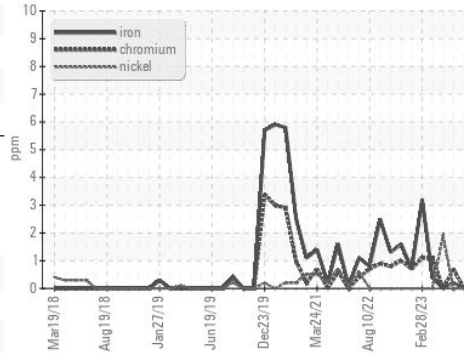


### Water

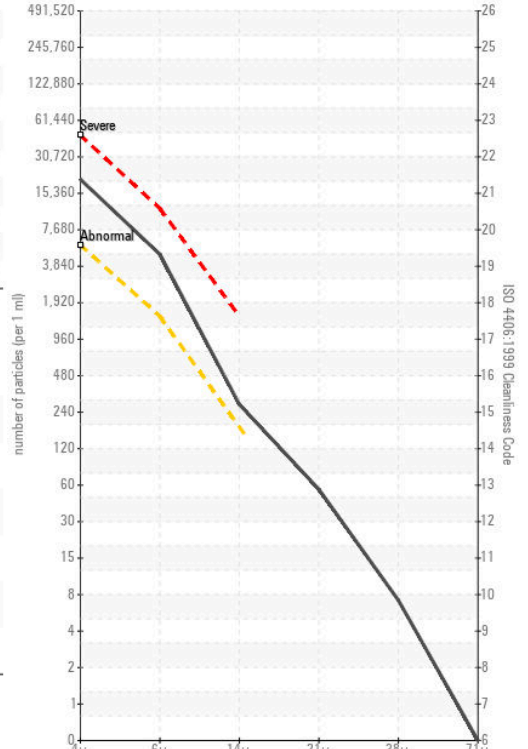


### GRAPHS

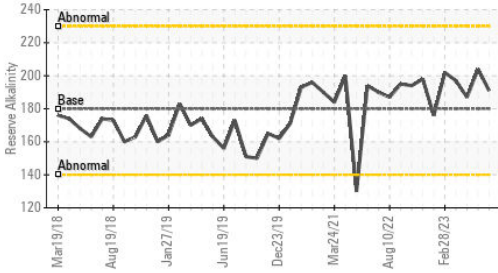
#### Ferrous Alloys



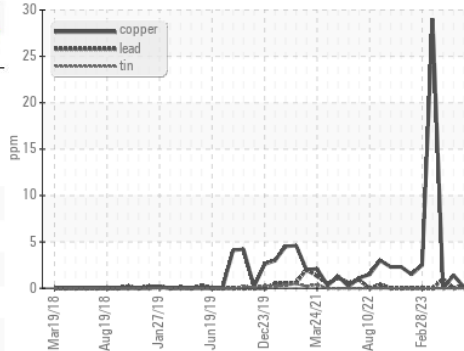
#### Particle Count



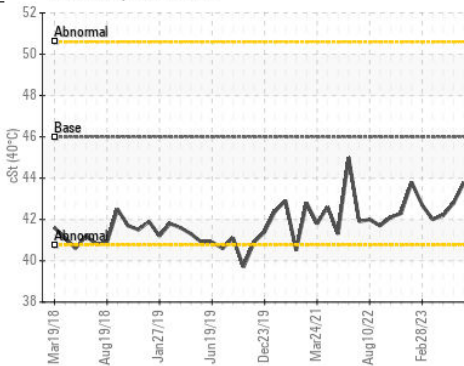
### Reserve Alkalinity



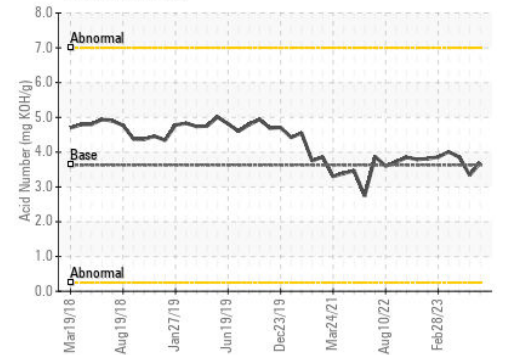
#### Non-ferrous Metals



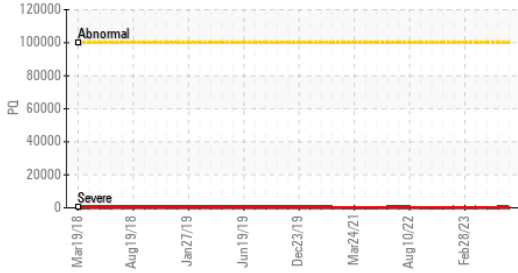
#### Viscosity @ 40°C



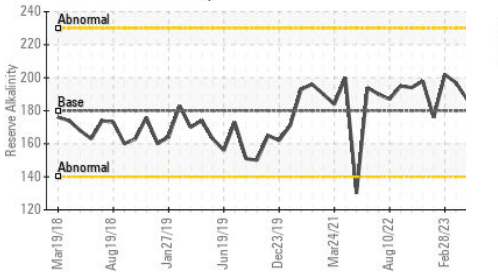
#### Acid Number



### PQ



### Reserve Alkalinity



ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**  
**Sample No.** : WC0850109 **Received** : 16 Aug 2023 2330 Regional Road #3, Door: BOSC8  
**Lab Number** : 02576289 **Diagnosed** : 21 Aug 2023 NANTICOKE, ON  
**Unique Number** : 5629349 **Diagnostician** : Kevin Marson CA N0A 1L0  
**Test Package** : IND 2 ( Additional Tests: KF, pH, PQ, ReserveAlk, TAN Man )  
 Contact: Tom Walden  
 Thomas.Walden@stelco.com

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.  
 T: (519)587-4541  
 F: (519)587-7702