

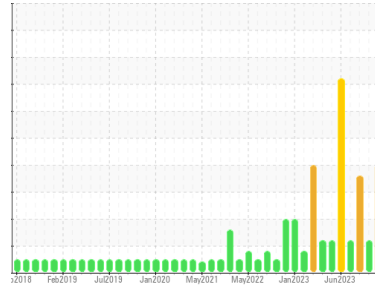


# PROBLEM SUMMARY

Sample Rating Trend

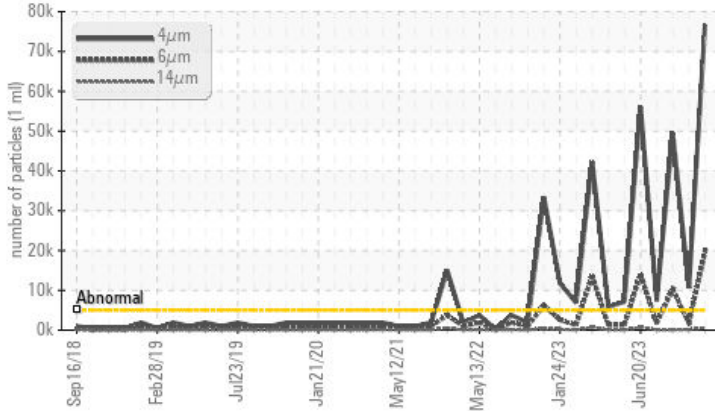
ISO

Area  
**BOF/OG SYSTEM**  
 Machine Id  
**D - 8 Skirt Lifting and Seal Jacking Hydraulics**  
 Component  
**Hydraulic System**  
 Fluid  
**FORSYTHE NO FIRE WG 200R (350 GAL)**



## COMPONENT CONDITION SUMMARY

### Particle Trend



## RECOMMENDATION

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 contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	SEVERE
Particles >4µm	ASTM D7647	>5000	🔴 76641	🟡 10674	🔴 49567
Particles >6µm	ASTM D7647	>1300	🔴 19596	🟢 1749	🔴 10231
Particles >14µm	ASTM D7647	>160	🟡 593	117	93
Oil Cleanliness	ISO 4406 (c)	>19/17/14	🔴 23/21/16	🟡 21/18/14	🔴 23/21/14

Customer Id: LEWBOSC  
 Sample No.: WC0890384  
 Lab Number: 02603623  
 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	---	---	?	Resample in 30-45 days to monitor this situation.
Contact Required	---	---	?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert	---	---	?	NOTE: We recommend using IND 3 test kits,
Check Breathers	---	---	?	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.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

16 Oct 2023 Diag: Kevin Marson



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 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



16 Aug 2023 Diag: Kevin Marson



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. All component wear rates are normal. There is a high amount of silt (particulates < 14 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



13 Jul 2023 Diag: Kevin Marson



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 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 condition of the oil is suitable for further service.

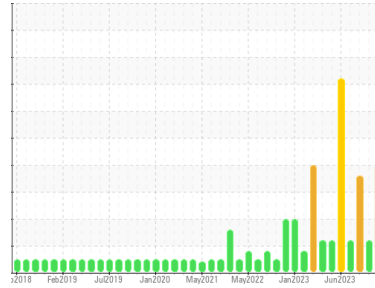
view report





# COOLANT REPORT

Sample Rating Trend



ISO



Area  
**BOF/OG SYSTEM**  
 Machine Id  
**D - 8 Skirt Lifting and Seal Jacking Hydraulics**  
 Component  
**Hydraulic System**  
 Fluid  
**FORSYTHE NO FIRE WG 200R (350 GAL)**

## DIAGNOSIS

### Recommendation

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 contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

### Wear

Component wear rates appear to be normal (unconfirmed).

### Contamination

There is a high 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>WC0890384</b>	WC0871213	WC0850090
Sample Date	Client Info		<b>15 Dec 2023</b>	16 Oct 2023	16 Aug 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	ABNORMAL	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method		<b>NEG</b>	NEG	NEG

## CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<b>2</b>	<1	0
Phosphorus	ppm	ASTM D5185(m)	<b>1</b>	<1	0
Boron	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	0

## CORROSION

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

## CONTAMINANTS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>76641</b>	10674	49567
Particles >6µm	ASTM D7647	>1300	<b>19596</b>	1749	10231
Particles >14µm	ASTM D7647	>160	<b>593</b>	117	93
Particles >21µm	ASTM D7647	>40	<b>43</b>	51	11
Particles >38µm	ASTM D7647	>10	<b>6</b>	9	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	4	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>23/21/16</b>	21/18/14	23/21/14

## CARRIER SALTS

	method	limit/base	current	history1	history2
Sodium	ppm	ASTM D5185(m)	<b>178</b>	136	106
Potassium	ppm	ASTM D5185(m)	<b>10</b>	6	0

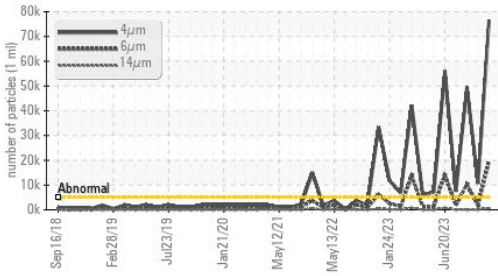
## SCALE POTENTIAL

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



# COOLANT REPORT

## Particle Trend



VISUAL	method	limit/base	current	history1	history2
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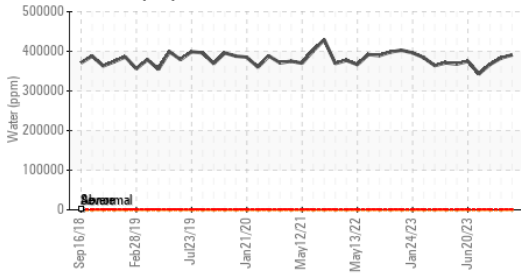
Color



Bottom

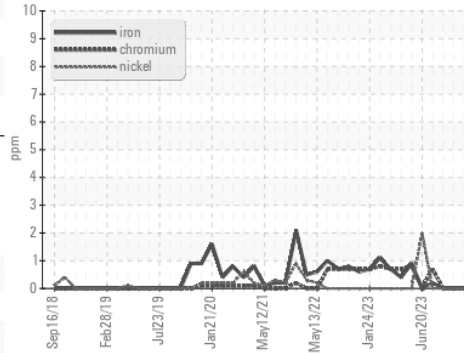


## Water (KF)

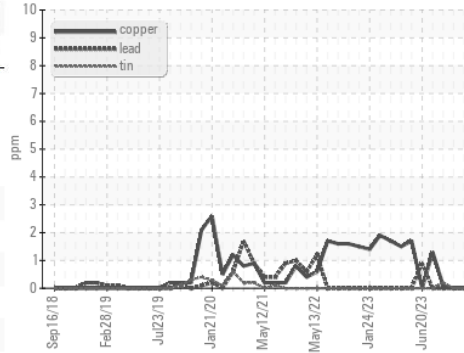


## GRAPHS

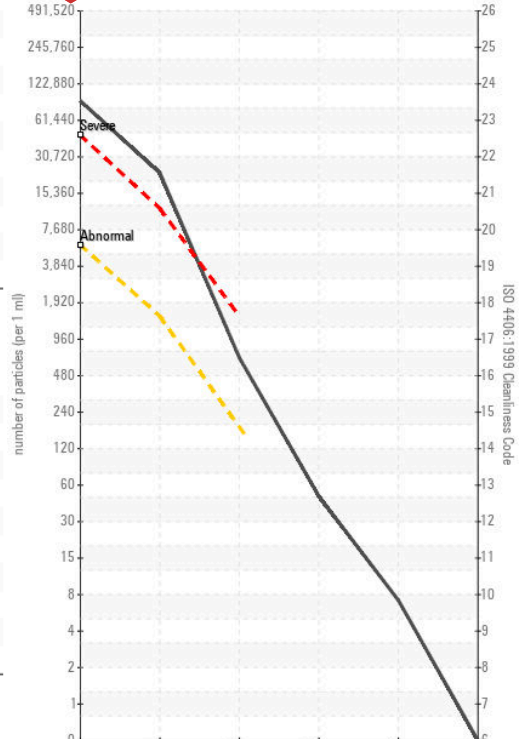
### Ferrous Alloys



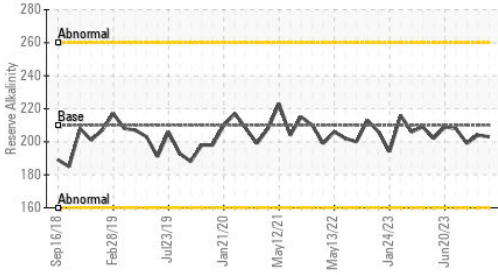
### Non-ferrous Metals



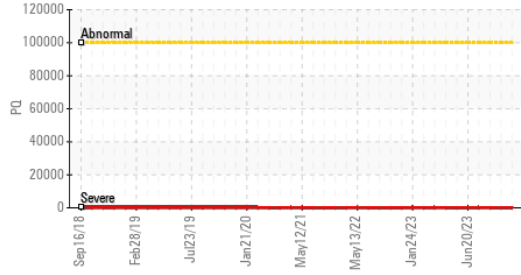
## Particle Count



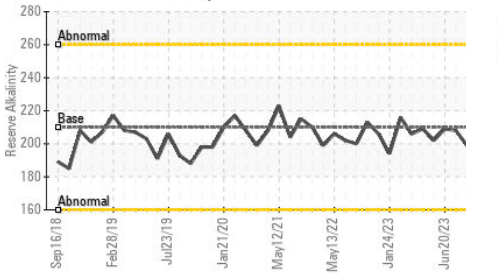
## Reserve Alkalinity



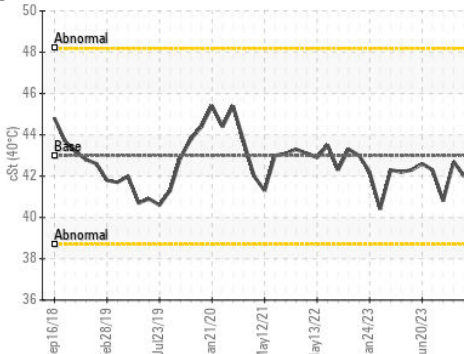
## PQ



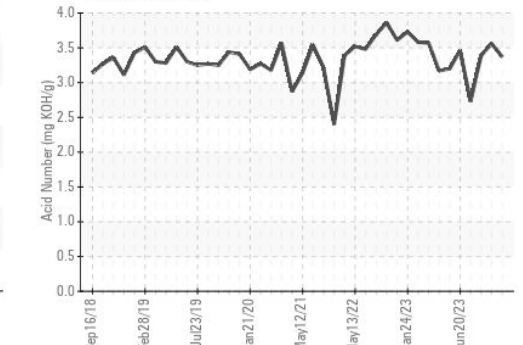
## Reserve Alkalinity



## Viscosity @ 40°C



## Acid Number



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**  
**Sample No.** : WC0890384 **Received** : 15 Dec 2023 2330 Regional Road #3, Door: BOSC8  
**Lab Number** : 02603623 **Diagnosed** : 21 Dec 2023 NANTICOKE, ON  
**Unique Number** : 5696708 **Diagnostician** : Kevin Marson CA N0A 1L0  
**Test Package** : IND 2 ( Additional Tests: KF, pH, PQ, ReserveAlk, TAN Man )

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.

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