



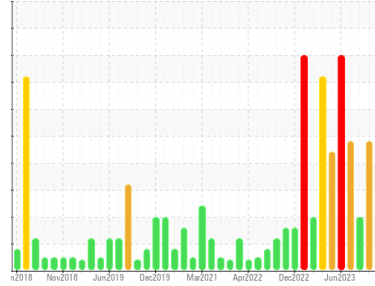
PROBLEM SUMMARY

Sample Rating Trend

ISO

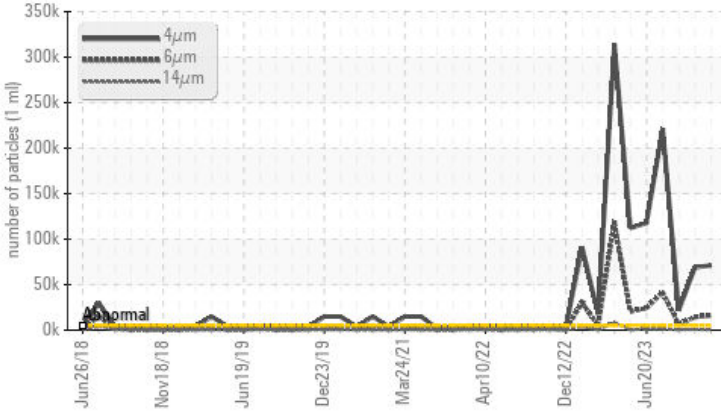


Area
BOF/DESULF
 Machine Id
D Desulph Ladle Tilt Car Hydraulic
 Component
Hydraulic System
 Fluid
FORSYTHE NO FIRE WG 200R (790 GAL)



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	SEVERE	ABNORMAL
Particles >4µm	ASTM D7647	>5000	71207	68840	21805
Particles >6µm	ASTM D7647	>1300	16302	14457	6111
Particles >14µm	ASTM D7647	>160	387	829	407
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/21/16	23/21/17	22/20/16

Customer Id: LEWBOSC
 Sample No.: WC0890383
 Lab Number: 02603618
 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


To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
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


ISO




16 Oct 2023 Diag: Kevin Marson

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. 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




ISO




16 Aug 2023 Diag: Kevin Marson

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate 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




ISO



13 Jul 2023 Diag: Kevin Marson

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. 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





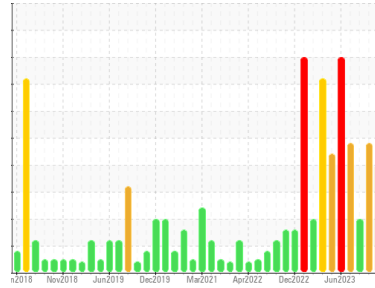
COOLANT REPORT

Sample Rating Trend

ISO



Area
BOF/DESULF
 Machine Id
D Desulph Ladle Tilt Car Hydraulic
 Component
Hydraulic System
 Fluid
FORSYTHE NO FIRE WG 200R (790 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		WC0890383	WC0871211	WC0850084
Sample Date	Client Info		15 Dec 2023	16 Oct 2023	16 Aug 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method		NEG	NEG	NEG

CORROSION INHIBITORS

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

CORROSION

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

CONTAMINANTS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	71207	68840	21805
Particles >6µm	ASTM D7647	>1300	16302	14457	6111
Particles >14µm	ASTM D7647	>160	387	829	407
Particles >21µm	ASTM D7647	>40	49	221	101
Particles >38µm	ASTM D7647	>10	4	25	8
Particles >71µm	ASTM D7647	>3	0	4	2
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/21/16	23/21/17	22/20/16

CARRIER SALTS

	method	limit/base	current	history1	history2
Sodium	ppm	ASTM D5185(m)	173	125	192
Potassium	ppm	ASTM D5185(m)	6	5	8

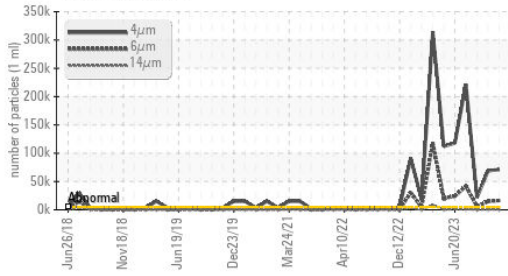
SCALE POTENTIAL

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



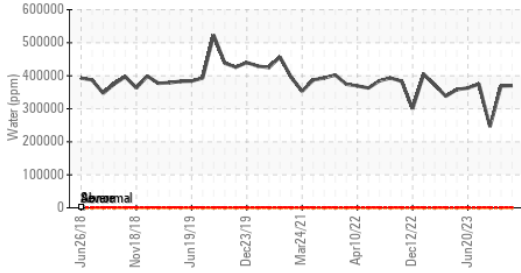
COOLANT REPORT

Particle Trend



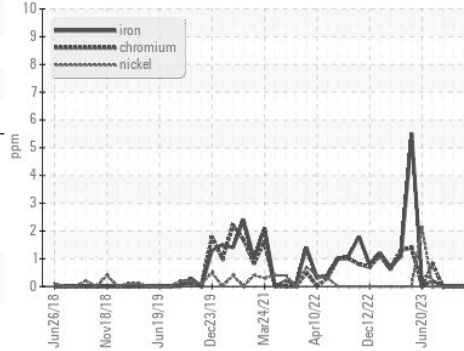
VISUAL	method	limit/base	current	history1	history2
Color					
Bottom					

Water (KF)

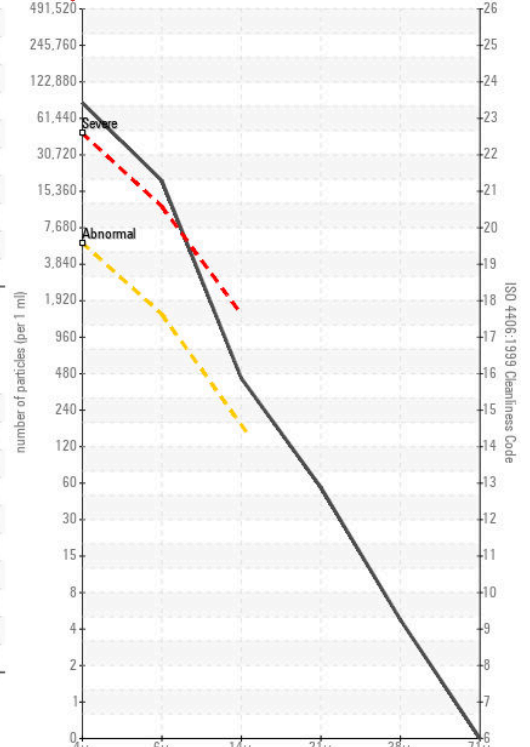


GRAPHS

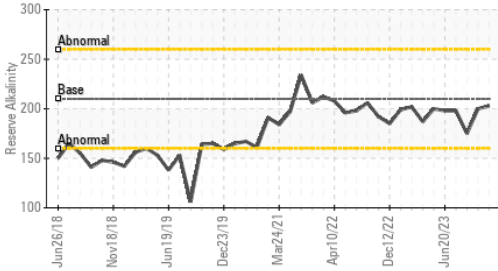
Ferrous Alloys



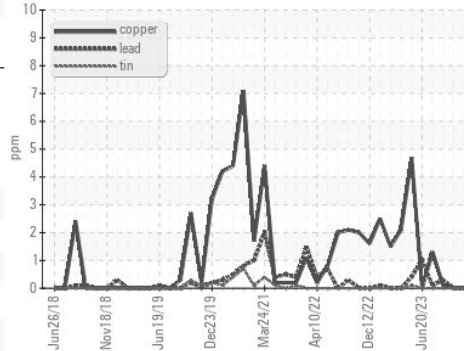
Particle Count



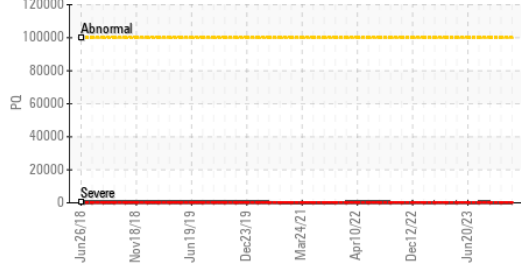
Reserve Alkalinity



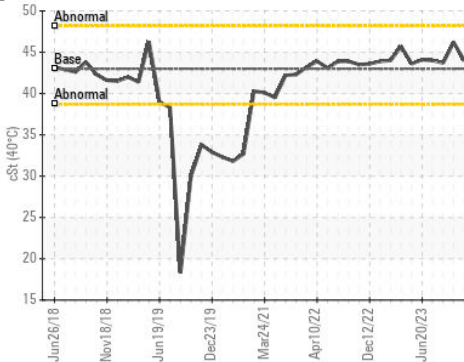
Non-ferrous Metals



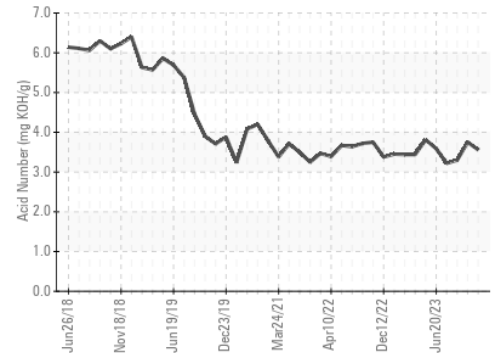
PQ



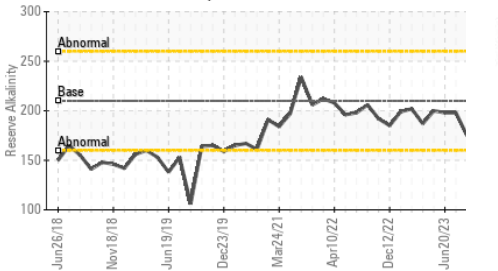
Viscosity @ 40°C



Acid Number



Reserve Alkalinity



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0890383 **Received** : 15 Dec 2023 **2330 Regional Road #3, Door: BOSC8**
Lab Number : 02603618 **Diagnosed** : 21 Dec 2023 **NANTICOKE, ON**
Unique Number : 5696703 **Diagnostician** : Kevin Marson **CA N0A 1L0**
Test Package : IND 2 (Additional Tests: KF, pH, PQ, ReserveAlk, TAN Man) **Contact: Tom Walden**

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.

Thomas.Walden@stelco.com
T: (519)587-4541
F: (519)587-7702