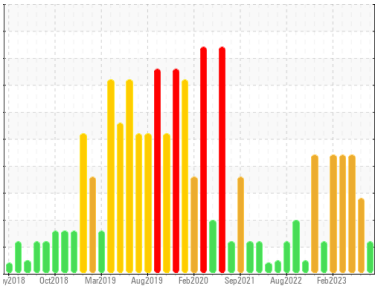
# PROBLEM SUMMARY

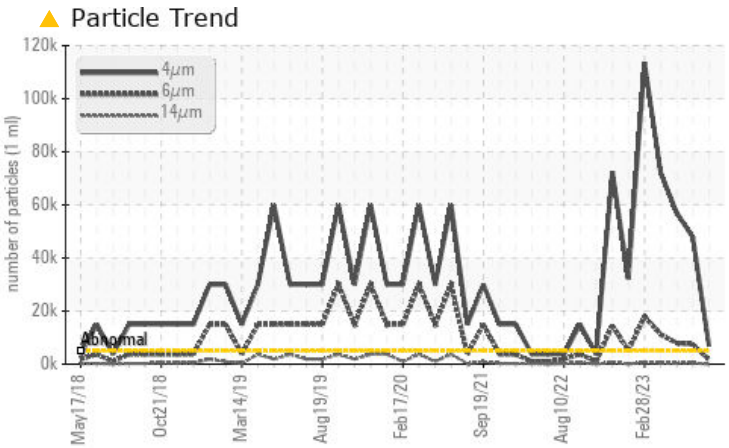
Sample Rating Trend



ISO

Area
**RHOB/HYDRAULICS**
Machine Id
**E - 1 Hydraulics Repair Car**
Component
**Tank Hydraulic System**
Fluid
**AMERICAN CHEMICAL TECH. FR WG 200-D (132 GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | ATTENTION | SEVERE | SEVERE |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **6859** | ⬢ 47775 | ⬢ 57000 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **1661** | ▲ 7468 | ▲ 7979 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **20/18/13** | ⬢ 23/20/16 | ⬢ 23/20/15 |

**Customer Id:** LEWBOSC
**Sample No.:** WC0850108
**Lab Number:** 02576288
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
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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. |

## HISTORICAL DIAGNOSIS

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

COOL CHEMICALS

**20 Jun 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. Confirm the source of the lubricant being utilized for top-up/fill. 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. 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. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

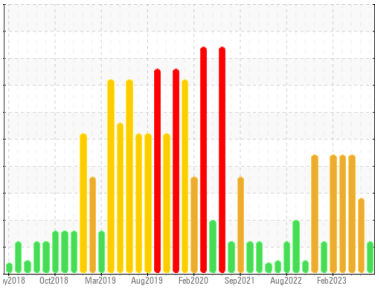
**31 May 2023 Diag: Kevin Marson**

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

# COOLANT REPORT

Sample Rating Trend



ISO

Area
## RHOB/HYDRAULICS
Machine Id
## E - 1 Hydraulics Repair Car
Component
**Tank Hydraulic System**
Fluid
**AMERICAN CHEMICAL TECH. FR WG 200-D (132 GAL)**

## DIAGNOSIS

**Recommendation**

We recommend you service the filters on this component. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is a light 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 condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0850108** | WC0838976 | WC0832557 |
| Sample Date | | Client Info | | **16 Aug 2023** | 13 Jul 2023 | 20 Jun 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 | | | | **ATTENTION** | SEVERE | SEVERE |

| CORROSION INHIBITORS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | | **0** | <1 | 0 |
| Phosphorus | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| Boron | ppm | ASTM D5185(m) | | **0** | <1 | 1 |
| Molybdenum | ppm | ASTM D5185(m) | | **0** | <1 | 2 |

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

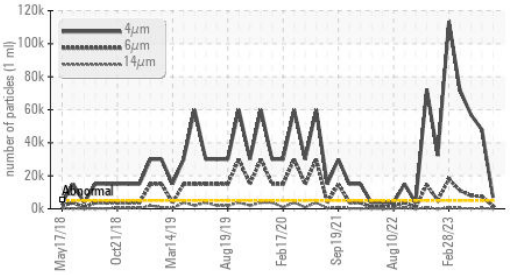
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **6859** | ⬢ 47775 | ⬢ 57000 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **1661** | ▲ 7468 | ▲ 7979 |
| Particles >14µm | | ASTM D7647 | >160 | **75** | ▲ 384 | ▲ 284 |
| Particles >21µm | | ASTM D7647 | >40 | **17** | ▲ 97 | ▲ 73 |
| Particles >38µm | | ASTM D7647 | >10 | **0** | 5 | 4 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **20/18/13** | ⬢ 23/20/16 | ⬢ 23/20/15 |

| CARRIER SALTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sodium | ppm | ASTM D5185(m) | | **172** | 116 | 182 |
| Potassium | ppm | ASTM D5185(m) | | **0** | 0 | ▲ <1 |

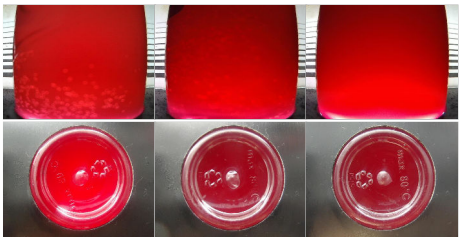
| SCALE POTENTIAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Calcium | ppm | ASTM D5185(m) | | **2** | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | **<1** | 2 | <1 |

# COOLANT REPORT

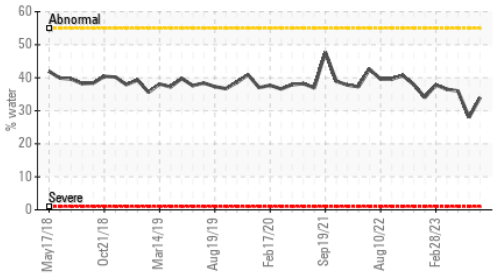
Particle Trend




| VISUAL | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | | | |
| Bottom | | | | | |

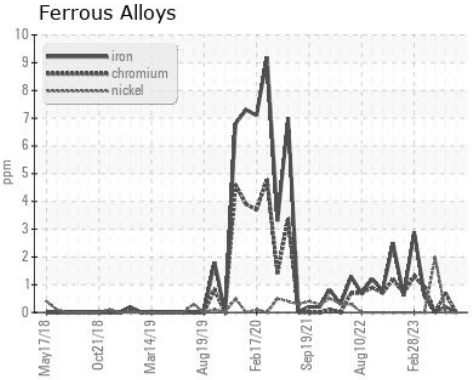


Water

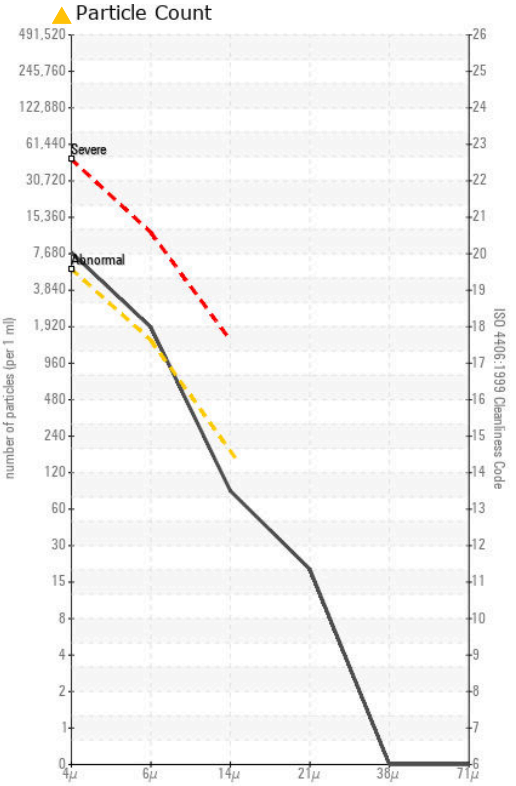



## GRAPHS

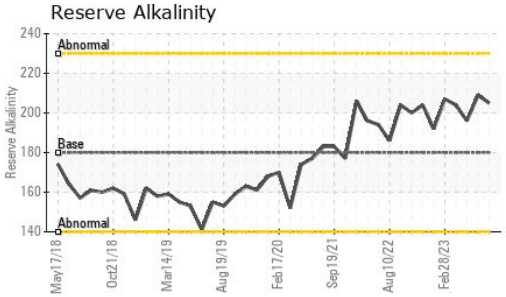
Ferrous Alloys



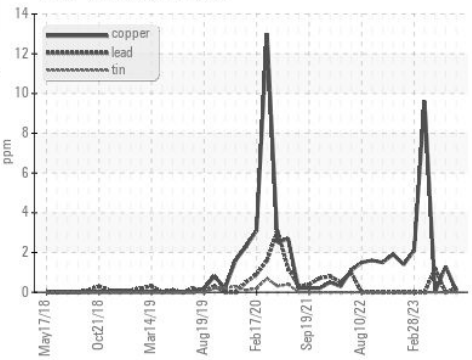

Particle Count



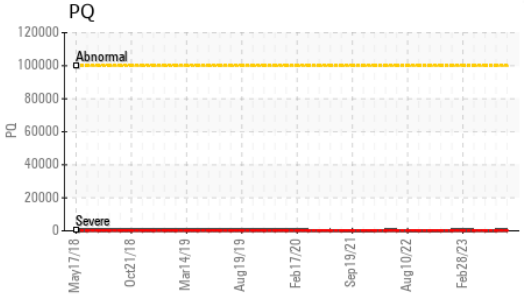

Reserve Alkalinity



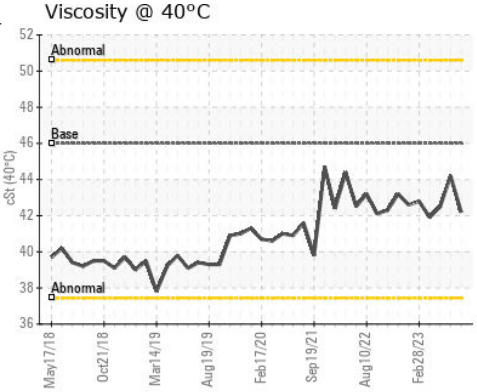

Non-ferrous Metals



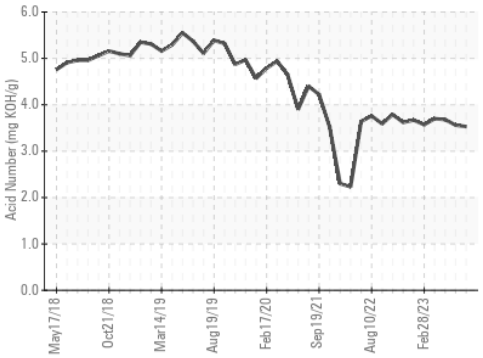

PQ



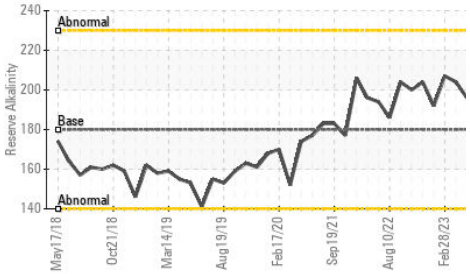

Viscosity @ 40°C




Acid Number




Reserve Alkalinity




CALA
ISO 17025:2017 Accredited Laboratory


**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
**Sample No.** : WC0850108 **Received** : 16 Aug 2023 2330 Regional Road #3, Door: BOSC8
**Lab Number** : 02576288 **Diagnosed** : 21 Aug 2023 NANTICOKE, ON
**Unique Number** : 5629348 **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.* Thomas.Walden@stelco.com
*Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.* T: (519)587-4541
*Validity of results and interpretation are based on the sample and information as supplied.* F: (519)587-7702