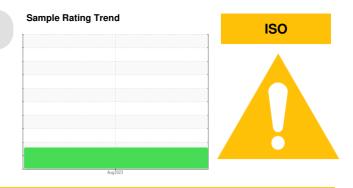


PROBLEM SUMMARY

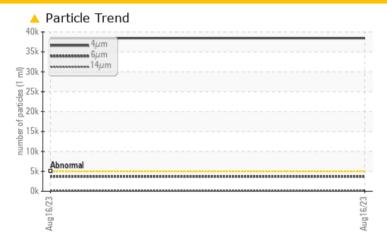
Landmark Plastics M13302

Component **Hydraulic System**

AW HYDRAULIC OIL ISO 46 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

This is a baseline read-out on the submitted sample.

| PROBLEMATIC T | EST RESULTS | | | |
|-----------------|--------------|-----------|-----------------|------|
| Sample Status | | | ABNORMAL | |
| Particles >4µm | ASTM D7647 | >5000 | 38436 | |
| Particles >6µm | ASTM D7647 | >1300 | 3688 | |
| Particles >14µm | ASTM D7647 | >160 | <u>^</u> 228 | |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 22/19/15 | |

Customer Id: CHECOB Sample No.: E30000110 Lab Number: 02577483 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Tatiana Sorkina +1 (800)263-3939 tsorkina@e360s.ca

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



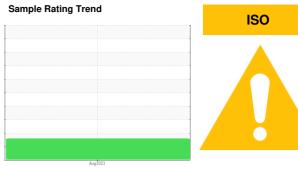
OIL ANALYSIS REPORT

Landmark Plastics M13302

Component

Hydraulic System

AW HYDRAULIC OIL ISO 46 (--- GAL)



DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample.

Wear

{not applicable}

Contamination

Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are notably high.

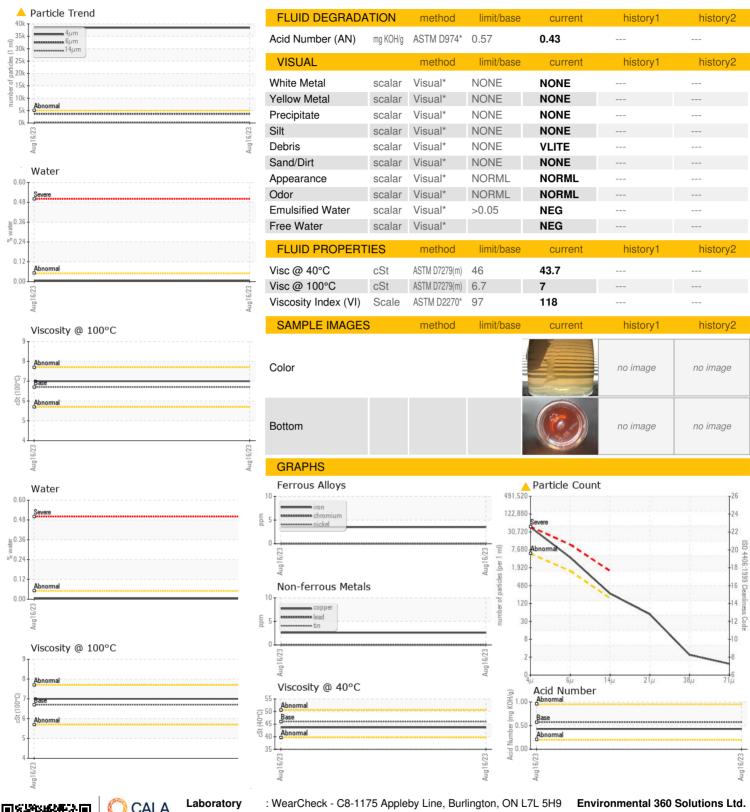
Fluid Condition

{not applicable}

| 0.44.454.5 | | | | | | |
|--|--|--|--|--|--------------------------|--------------------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | E30000110 | | |
| Sample Date | | Client Info | | 16 Aug 2023 | | |
| Machine Age | hrs | Client Info | | 0 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | ABNORMAL | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >20 | 4 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | | |
| Nickel | ppm | ASTM D5185(m) | >20 | 0 | | |
| Titanium | ppm | ASTM D5185(m) | | <1 | | |
| Silver | ppm | ASTM D5185(m) | | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | | |
| Lead | ppm | ASTM D5185(m) | >20 | 0 | | |
| Copper | ppm | ASTM D5185(m) | >20 | 3 | | |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | | |
| Antimony | ppm | ASTM D5185(m) | | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | 5 | 6 | | |
| Barium | ppm | ASTM D5185(m) | 5 | 0 | | |
| | | | | | | |
| Molybdenum | ppm | ASTM D5185(m) | 5 | 2 | | |
| Molybdenum Manganese | ppm ppm | ASTM D5185(m) ASTM D5185(m) | 5 | 2 0 | | |
| - | | . , | 5 25 | | | |
| Manganese | ppm | ASTM D5185(m) | | 0 | | |
| Manganese Magnesium | ppm ppm | ASTM D5185(m) ASTM D5185(m) | 25 | 0 23 | | |
| Manganese Magnesium Calcium | ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 | 0 23 98 | | |
| Manganese Magnesium Calcium Phosphorus | ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 300 | 0 23 98 387 | | |
| Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 300 370 | 0 23 98 387 443 | | |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 300 370 | 0 23 98 387 443 921 | | |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium | ppm ppm ppm ppm ppm ppm | ASTM D5185(m) | 25 200 300 370 2500 | 0 23 98 387 443 921 | | |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS | ppm ppm ppm ppm ppm ppm | ASTM D5185(m) METHOD | 25 200 300 370 2500 | 0 23 98 387 443 921 <1 | history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) MASTM D5185(m) | 25 200 300 370 2500 | 0 23 98 387 443 921 <1 current | history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 300 370 2500 limit/base >15 | 0 23 98 387 443 921 <1 current 2 <1 | history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 300 370 2500 limit/base >15 >20 | 0 23 98 387 443 921 <1 current 2 <1 <1 | history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 25 200 300 370 2500 limit/base >15 >20 >0.05 | 0 23 98 387 443 921 <1 current 2 <1 <1 0.005 | history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) METHOD ASTM D5185(m) | 25 200 300 370 2500 limit/base >15 >20 >0.05 >500 | 0 23 98 387 443 921 <1 current 2 <1 <1 0.005 56.4 | history1 | history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D6304* ASTM D6304* | 25 200 300 370 2500 limit/base >15 >20 >0.05 >500 limit/base >5000 | 0 23 98 387 443 921 <1 current 2 <1 <1 0.005 56.4 current | history1 history1 | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D6304* MASTM D6304* MASTM D6304* | 25 200 300 370 2500 limit/base >15 >20 >0.05 >500 limit/base >5000 | 0 23 98 387 443 921 <1 current 2 <1 0.005 56.4 current 38436 | history1 history1 | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* MASTM D6304* MASTM D6304* ASTM D7647 ASTM D7647 | 25 200 300 370 2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >160 | 0 23 98 387 443 921 <1 current 2 <1 1 0.005 56.4 current 38436 3688 | history1 history1 | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 | 25 200 300 370 2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >160 | 0 23 98 387 443 921 <1 current 2 <1 0.005 56.4 current ▲ 38436 ▲ 3688 ▲ 228 | history1 history1 | history2 history2 |
| Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 25 200 300 370 2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40 >10 | 0 23 98 387 443 921 <1 current 2 <1 <1 0.005 56.4 current ▲ 38436 ▲ 3688 ▲ 228 46 | history1 history1 | history2 history2 |



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory

Sample No. Lab Number **Unique Number**

: E30000110

: 02577483 : 5630543

Received Diagnosed

: 22 Aug 2023 : 25 Aug 2023 Diagnostician : Tatiana Sorkina

Test Package : IND 2 (Additional Tests: KF, KV100, TAN Man, VI) 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.

640 Victoria Street Cobourg, ON **CA K9A 5H5** Contact: Fred Kosseim fkosseim@e360s.ca

T: (905)372-2251 F: (905)372-1658