

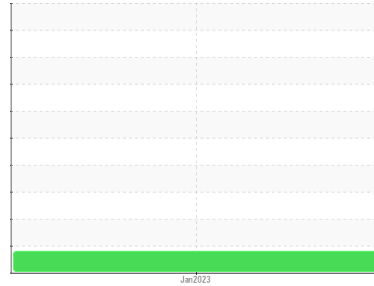


PROBLEM SUMMARY

Sample Rating Trend

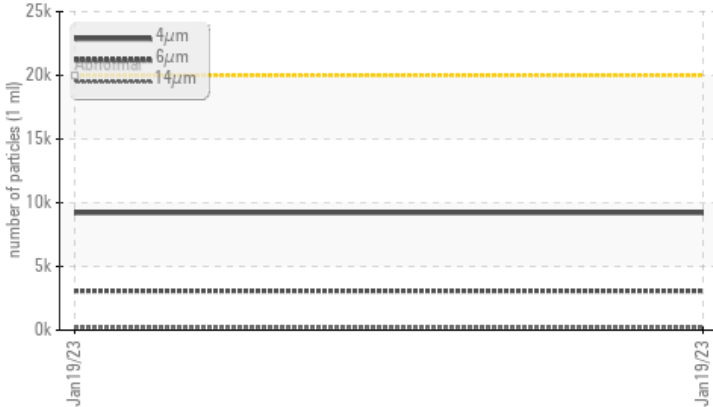
ISO

Area
BLACKJACK CREEK [200007683]
 Machine Id
38WEA88440 - J-03 (S/N GME004427A-19)
 Component
Hydraulic System
 Fluid
SHELL TELLUS S2 VX 32 (--- LTR)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| | | | | | |
|-----------------|--------------|-----------|------------------|-----|-----|
| Sample Status | | | ATTENTION | --- | --- |
| Particles >6µm | ASTM D7647 | >2500 | ▲ 3080 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >21/18/15 | ▲ 20/19/15 | --- | --- |

Customer Id: NORDEX
 Sample No.: NX011597
 Lab Number: 05757216
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Area
BLACKJACK CREEK [200007683]
 Machine Id
38WEA88440 - J-03 (S/N GME004427A-19)
 Component
Hydraulic System
 Fluid
SHELL TELLUS S2 VX 32 (--- LTR)



DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. Resample at the next service interval to monitor.

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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history 1 | history 2 |
|---------------|-----------------|--------------------|-----------|-----------|
| Sample Number | Client Info | NX011597 | --- | --- |
| Sample Date | Client Info | 19 Jan 2023 | --- | --- |
| Machine Age | hrs Client Info | 2160 | --- | --- |
| Oil Age | hrs Client Info | 0 | --- | --- |
| Oil Changed | Client Info | N/A | --- | --- |
| Sample Status | | ATTENTION | --- | --- |

WEAR METALS

| method | limit/base | current | history 1 | history 2 |
|----------|---------------------|--------------|-----------|-----------|
| PQ | ASTM D8184 | 7 | --- | --- |
| Iron | ppm ASTM D5185m >20 | 0 | --- | --- |
| Chromium | ppm ASTM D5185m >20 | <1 | --- | --- |
| Nickel | ppm ASTM D5185m >20 | 0 | --- | --- |
| Titanium | ppm ASTM D5185m | 0 | --- | --- |
| Silver | ppm ASTM D5185m | 0 | --- | --- |
| Aluminum | ppm ASTM D5185m >20 | 0 | --- | --- |
| Lead | ppm ASTM D5185m >20 | 0 | --- | --- |
| Copper | ppm ASTM D5185m >20 | <1 | --- | --- |
| Tin | ppm ASTM D5185m >20 | 0 | --- | --- |
| Vanadium | ppm ASTM D5185m | 0 | --- | --- |
| Cadmium | ppm ASTM D5185m | 0 | --- | --- |

ADDITIVES

| method | limit/base | current | history 1 | history 2 |
|------------|-----------------|------------|-----------|-----------|
| Boron | ppm ASTM D5185m | 0 | --- | --- |
| Barium | ppm ASTM D5185m | 0 | --- | --- |
| Molybdenum | ppm ASTM D5185m | 0 | --- | --- |
| Manganese | ppm ASTM D5185m | 0 | --- | --- |
| Magnesium | ppm ASTM D5185m | 12 | --- | --- |
| Calcium | ppm ASTM D5185m | 17 | --- | --- |
| Phosphorus | ppm ASTM D5185m | 333 | --- | --- |
| Zinc | ppm ASTM D5185m | 215 | --- | --- |
| Sulfur | ppm ASTM D5185m | 537 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history 1 | history 2 |
|-----------|---------------------|--------------|-----------|-----------|
| Silicon | ppm ASTM D5185m >15 | <1 | --- | --- |
| Sodium | ppm ASTM D5185m | 0 | --- | --- |
| Potassium | ppm ASTM D5185m >20 | 0 | --- | --- |
| Water | % ASTM D6304 >0.05 | 0.005 | --- | --- |
| ppm Water | ppm ASTM D6304 >500 | 58.1 | --- | --- |

FLUID CLEANLINESS

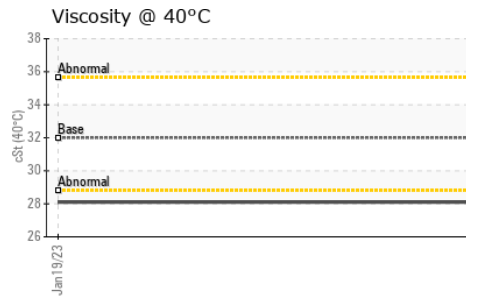
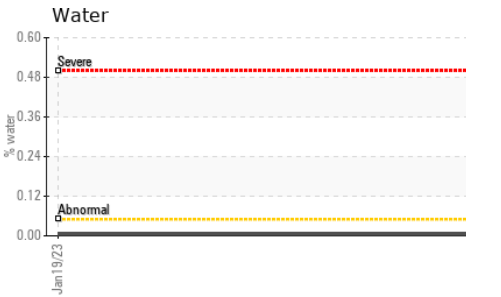
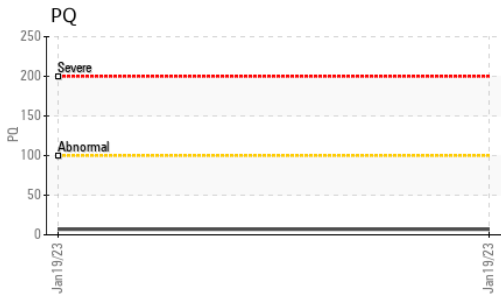
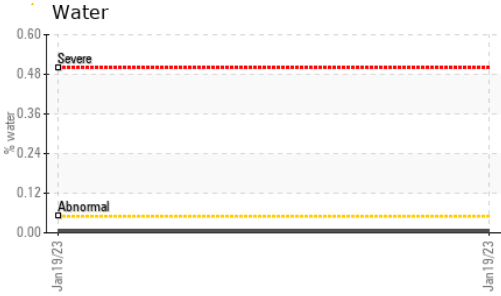
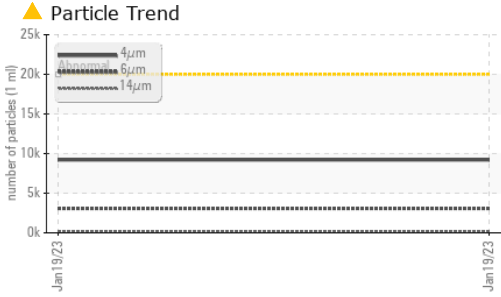
| method | limit/base | current | history 1 | history 2 |
|-----------------|------------------------|-----------------|-----------|-----------|
| Particles >4µm | ASTM D7647 >20000 | 9209 | --- | --- |
| Particles >6µm | ASTM D7647 >2500 | 3080 | --- | --- |
| Particles >14µm | ASTM D7647 >320 | 206 | --- | --- |
| Particles >21µm | ASTM D7647 >80 | 28 | --- | --- |
| Particles >38µm | ASTM D7647 >20 | 2 | --- | --- |
| Particles >71µm | ASTM D7647 >4 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) >21/18/15 | 20/19/15 | --- | --- |

FLUID DEGRADATION

| method | limit/base | current | history 1 | history 2 |
|------------------|---------------------|-------------|-----------|-----------|
| Acid Number (AN) | mg KOH/g ASTM D8045 | 0.25 | --- | --- |



OIL ANALYSIS REPORT



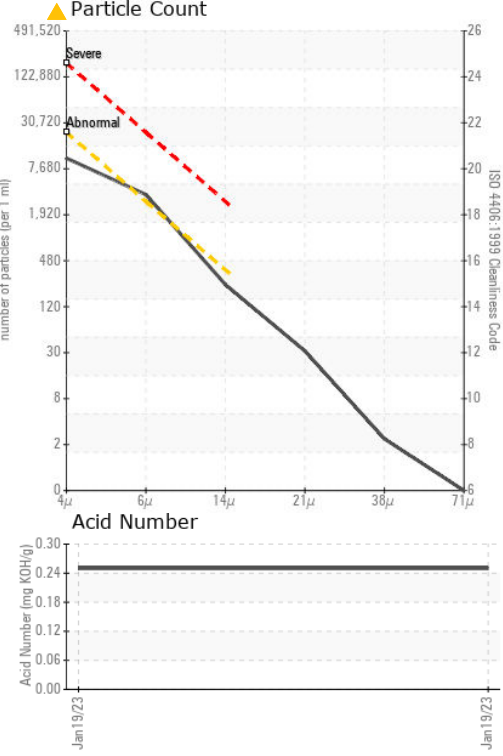
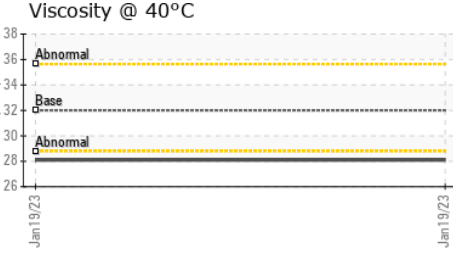
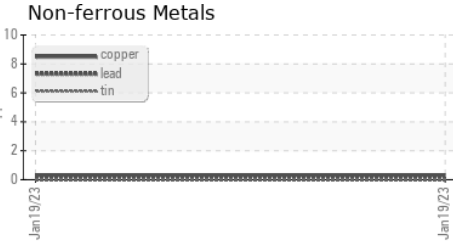
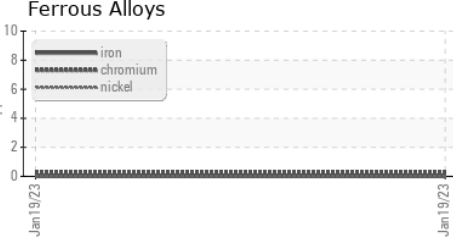
| VISUAL | method | limit/base | current | history 1 | history 2 | |
|------------------|--------|------------|---------|-----------|-----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |

| FLUID PROPERTIES | method | limit/base | current | history 1 | history 2 | |
|------------------|--------|------------|---------|-----------|-----------|-----|
| Visc @ 40°C | cSt | ASTM D445 | 32 | 28.1 | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
|---------------|--------|------------|---------|-----------|-----------|

| | | | |
|--------|--|----------|----------|
| Color | | no image | no image |
| Bottom | | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NX011597 **Received** : 02 Feb 2023
Lab Number : 05757216 **Diagnosed** : 03 Feb 2023
Unique Number : 10321823 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PQ)

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Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)