



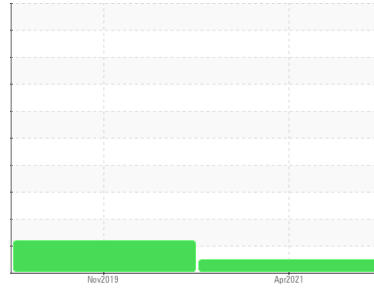
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**THUNDER SPIRIT [700404924]**  
 Machine Id  
**T035 (S/N 20111455405)**  
 Component  
**Transformer Oil**  
 Fluid  
**NOT GIVEN (658 GAL)**



## DIAGNOSIS

### Recommendation

This is a baseline read-out on the submitted sample. All tests and evaluation performed at subcontracted ISO 17025 laboratory.

| SAMPLE INFORMATION |  | method | limit/base | current | history1 | history2 |
|--------------------|--|--------|------------|---------|----------|----------|
|--------------------|--|--------|------------|---------|----------|----------|

|               |             |             |  |                    |             |     |
|---------------|-------------|-------------|--|--------------------|-------------|-----|
| Sample Number | Client Info |             |  | <b>NX05237105</b>  | NX04850260  | --- |
| Sample Date   | Client Info |             |  | <b>15 Apr 2021</b> | 07 Nov 2019 | --- |
| Machine Age   | hrs         | Client Info |  | <b>0</b>           | 0           | --- |
| Oil Age       | hrs         | Client Info |  | <b>0</b>           | 0           | --- |
| Oil Changed   | Client Info |             |  | <b>N/A</b>         | N/A         | --- |
| Sample Status |             |             |  | <b>NORMAL</b>      | MARGINAL    | --- |

| CONTAMINANTS |  | method | limit/base | current | history1 | history2 |
|--------------|--|--------|------------|---------|----------|----------|
|--------------|--|--------|------------|---------|----------|----------|

|           |     |            |     |          |   |     |
|-----------|-----|------------|-----|----------|---|-----|
| ppm Water | ppm | ASTM D6304 | >35 | <b>3</b> | 0 | --- |
|-----------|-----|------------|-----|----------|---|-----|

| DISSOLVED GAS ANALYSIS (DGA) |  | method | limit/base | current | history1 | history2 |
|------------------------------|--|--------|------------|---------|----------|----------|
|------------------------------|--|--------|------------|---------|----------|----------|

|                             |     |                |  |     |       |     |
|-----------------------------|-----|----------------|--|-----|-------|-----|
| DGA - H2                    | ppm | *ASTM D3612(e) |  | --- | 16    | --- |
| DGA - O2                    | ppm | *ASTM D3612(e) |  | --- | 4109  | --- |
| DGA - N2                    | ppm | *ASTM D3612(e) |  | --- | 78609 | --- |
| DGA - CO                    | ppm | *ASTM D3612(e) |  | --- | 149   | --- |
| DGA - CO2                   | ppm | *ASTM D3612(e) |  | --- | 607   | --- |
| DGA - Methane               | ppm | *ASTM D3612(e) |  | --- | 28    | --- |
| DGA - Acetylene             | ppm | *ASTM D3612(e) |  | --- | 0     | --- |
| DGA - Ethylene              | ppm | *ASTM D3612(e) |  | --- | ▲ 52  | --- |
| DGA - Ethane                | ppm | *ASTM D3612(e) |  | --- | 10    | --- |
| DGA - Total Gas Content     | %   | *ASTM D3612(e) |  | --- | 83580 | --- |
| DGA - Total Combustible Gas | ppm | *ASTM D3612(e) |  | --- | 255   | --- |

| FLUID DEGRADATION |  | method | limit/base | current | history1 | history2 |
|-------------------|--|--------|------------|---------|----------|----------|
|-------------------|--|--------|------------|---------|----------|----------|

|                  |          |            |  |     |       |     |
|------------------|----------|------------|--|-----|-------|-----|
| Acid Number (AN) | mg KOH/g | ASTM D8045 |  | --- | 0.005 | --- |
|------------------|----------|------------|--|-----|-------|-----|

| FLUID PROPERTIES |  | method | limit/base | current | history1 | history2 |
|------------------|--|--------|------------|---------|----------|----------|
|------------------|--|--------|------------|---------|----------|----------|

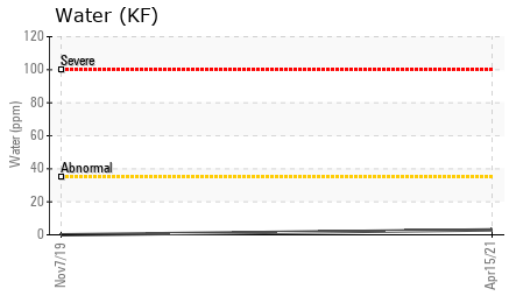
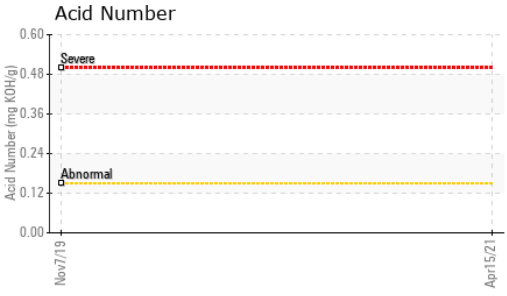
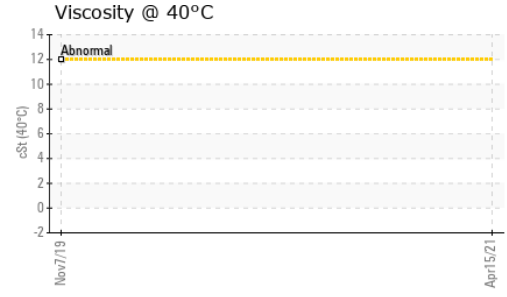
|                      |        |               |  |               |       |     |
|----------------------|--------|---------------|--|---------------|-------|-----|
| Specific Gravity     |        | ASTM D4052(e) |  | ---           | 0.876 | --- |
| Dielectric Breakdown | kV     | ASTM D1816(e) |  | ---           | 37    | --- |
| Interfacial Tension  | mN/m   | ASTM D971(e)  |  | ---           | 35.49 | --- |
| ASTM Color           | scalar | ASTM D1500(e) |  | <b>▲ L1.0</b> | L0.5  | --- |

| SAMPLE IMAGES |  | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|

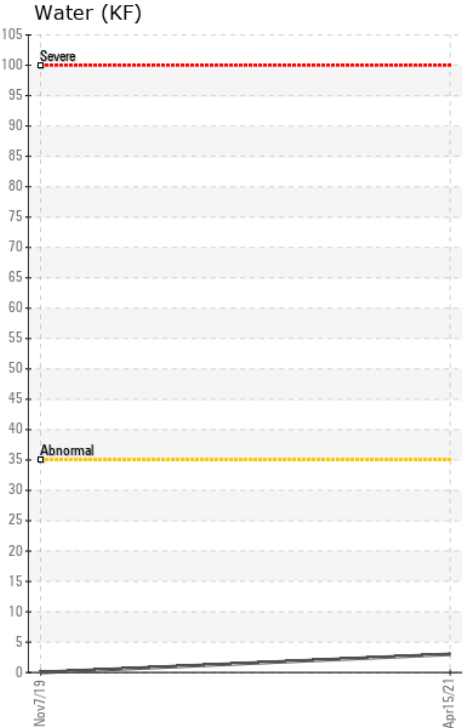
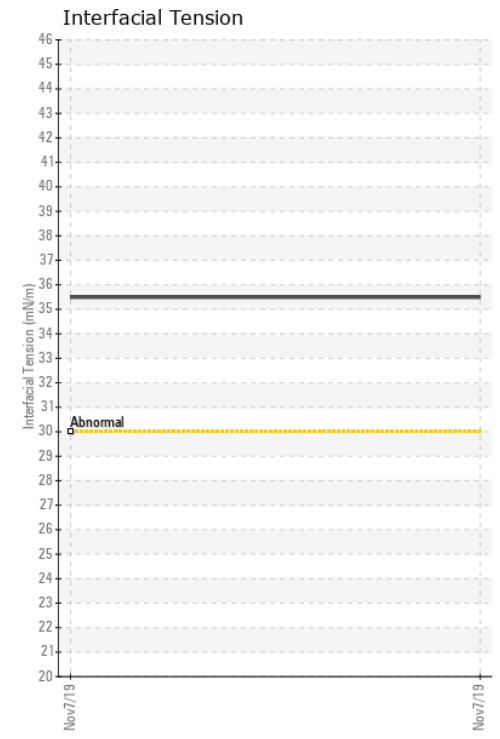
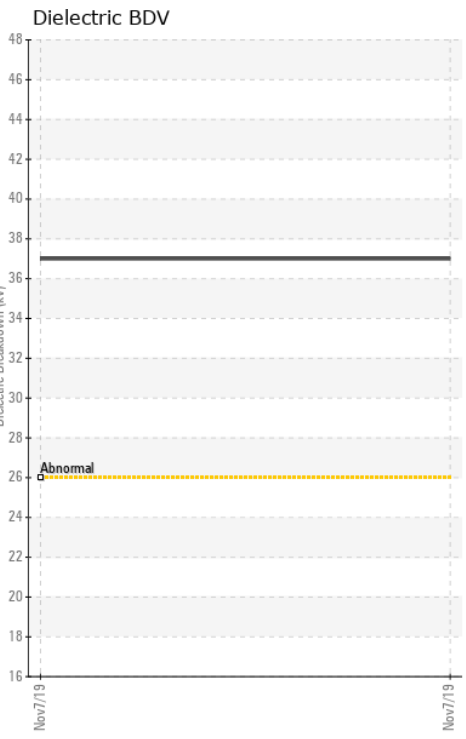
|        |  |  |  |  |          |          |          |
|--------|--|--|--|--|----------|----------|----------|
| Color  |  |  |  |  | no image | no image | no image |
| Bottom |  |  |  |  | no image | no image | no image |



# OIL ANALYSIS REPORT



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NX05237105 **Received** : 23 Apr 2021  
**Lab Number** : 05237105 **Diagnosed** : 02 Oct 2023  
**Unique Number** : 9476013 **Diagnostician** : System  
**Test Package** : TRF 2 ( Additional Tests: ICP, KV40 )

**NORDEX USA - Chicago**  
 300 SOUTH WACKER DRIVE, SUITE 1500  
 CHICAGO, IL  
 US 60606  
 Contact: BRIAN DOBBINS  
 bdobbins@nordex-online.com  
 T: (312)386-4100  
 F: (312)386-7102

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)