



OIL ANALYSIS REPORT

Sample Rating Trend

VIS DEBRIS

Area

BLACKJACK CREEK [200007683]

Machine Id

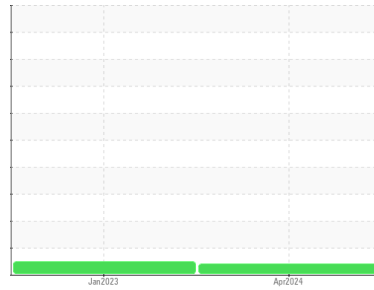
41WEA88431 - K-01 (S/N HR002768-10020)

Component

Hydraulic System

Fluid

SHELL TELLUS S2 VX 32 (--- LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		NX015616	NX011552	---
Sample Date	Client Info		18 Apr 2024	31 Jan 2023	---
Machine Age	hrs	Client Info	0	1821	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ABNORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		14	11	---
Iron	ppm	ASTM D5185m >20	<1	<1	---
Chromium	ppm	ASTM D5185m >20	2	<1	---
Nickel	ppm	ASTM D5185m >20	<1	0	---
Titanium	ppm	ASTM D5185m	<1	0	---
Silver	ppm	ASTM D5185m	0	0	---
Aluminum	ppm	ASTM D5185m >20	2	0	---
Lead	ppm	ASTM D5185m >20	1	0	---
Copper	ppm	ASTM D5185m >20	8	3	---
Tin	ppm	ASTM D5185m >20	0	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	---
Barium	ppm	ASTM D5185m	<1	0	---
Molybdenum	ppm	ASTM D5185m	0	<1	---
Manganese	ppm	ASTM D5185m	0	0	---
Magnesium	ppm	ASTM D5185m	2	0	---
Calcium	ppm	ASTM D5185m	28	38	---
Phosphorus	ppm	ASTM D5185m	279	258	---
Zinc	ppm	ASTM D5185m	349	294	---
Sulfur	ppm	ASTM D5185m	884	823	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	1	<1	---
Sodium	ppm	ASTM D5185m	0	<1	---
Potassium	ppm	ASTM D5185m >20	1	0	---
Water	%	ASTM D6304 >0.05	0.003	0.004	---
ppm Water	ppm	ASTM D6304 >500	38	45.0	---

FLUID CLEANLINESS

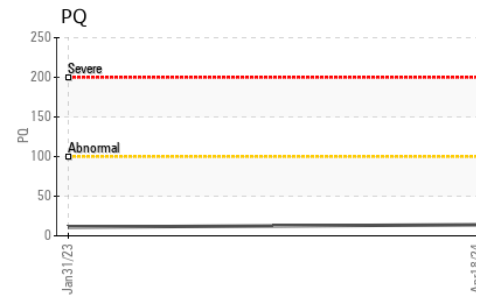
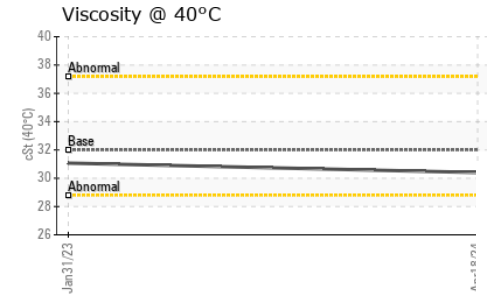
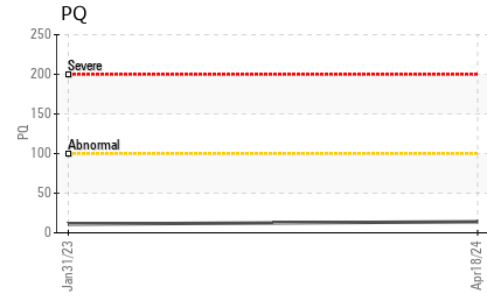
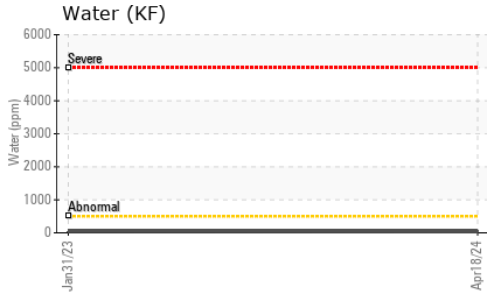
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	---	9220	---
Particles >6µm	ASTM D7647	>2500	---	2331	---
Particles >14µm	ASTM D7647	>320	---	97	---
Particles >21µm	ASTM D7647	>80	---	13	---
Particles >38µm	ASTM D7647	>20	---	0	---
Particles >71µm	ASTM D7647	>4	---	0	---
Oil Cleanliness	ISO 4406 (c)	>21/18/15	---	20/18/14	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.35	0.24	---



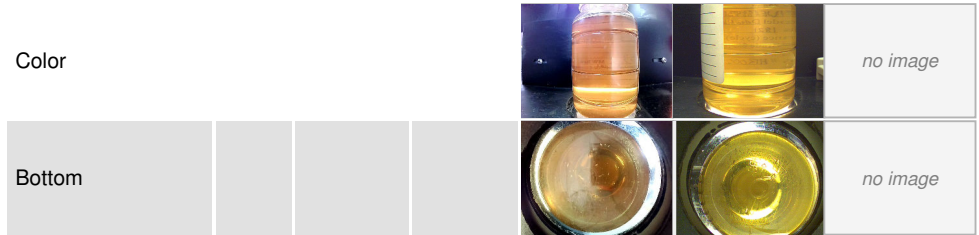
OIL ANALYSIS REPORT



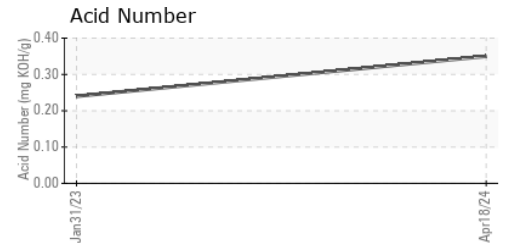
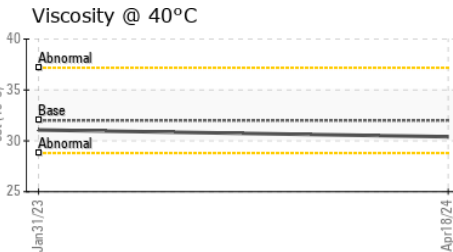
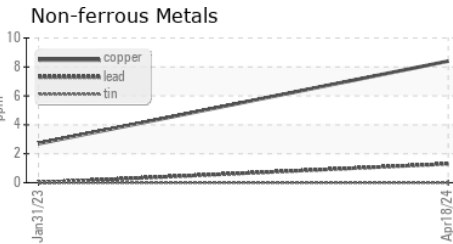
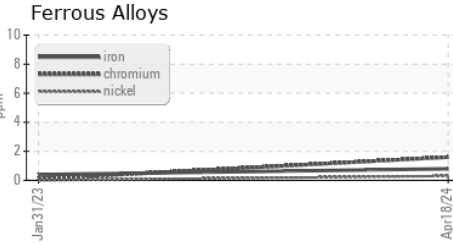
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 32	30.4	31.07	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : NX015616

Lab Number : 06210790

Unique Number : 11083654

Test Package : IND 2 (Additional Tests: KF, PQ)

Received : 14 Jun 2024

Tested : 19 Jun 2024

Diagnosed : 19 Jun 2024 - Angela Borella

NORDEX USA - Chicago

300 SOUTH WACKER DRIVE, SUITE 1500

CHICAGO, IL

US 60606

Contact: DEVIN LINEHAN

DLinehan@nordex-online.com

T: (312)386-4124

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)