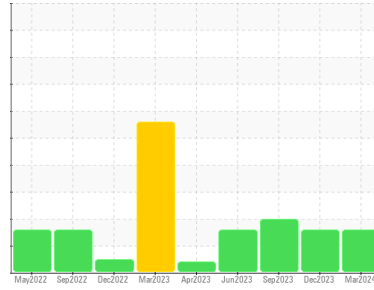




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
ENTWISTLE STAND
 Component
Hydraulic System
 Fluid
MILITARY MIL-H-83282C (50 GAL)

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

Elemental level of silicon (Si) above normal. The system cleanliness is acceptable for your target SAE AS4059 (replaces NAS 1638) cleanliness code. Chlorine measured at 14.2 ppm.

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	history1	history2
Sample Number	Client Info	WC0768786	WC0874945	WC0768843
Sample Date	Client Info	18 Mar 2024	14 Dec 2023	15 Sep 2023
Machine Age	hrs	Client Info	0	8574
Oil Age	hrs	Client Info	0	1000
Oil Changed	Client Info	N/A	Filtered	Filtered
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0
Chromium	ppm	ASTM D5185m >20	0	0
Nickel	ppm	ASTM D5185m >20	0	0
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m	0	0
Aluminum	ppm	ASTM D5185m >20	0	0
Lead	ppm	ASTM D5185m >20	0	0
Copper	ppm	ASTM D5185m >20	0	0
Tin	ppm	ASTM D5185m >20	0	0
Vanadium	ppm	ASTM D5185m	<1	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0
Barium	ppm	ASTM D5185m	0	0
Molybdenum	ppm	ASTM D5185m	0	0
Manganese	ppm	ASTM D5185m	0	<1
Magnesium	ppm	ASTM D5185m	0	<1
Calcium	ppm	ASTM D5185m	0	3
Phosphorus	ppm	ASTM D5185m	0	706
Zinc	ppm	ASTM D5185m	0	708
Sulfur	ppm	ASTM D5185m	0	654

CONTAMINANTS

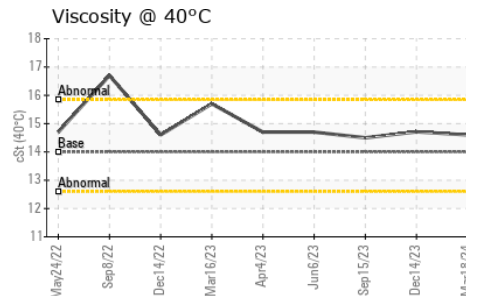
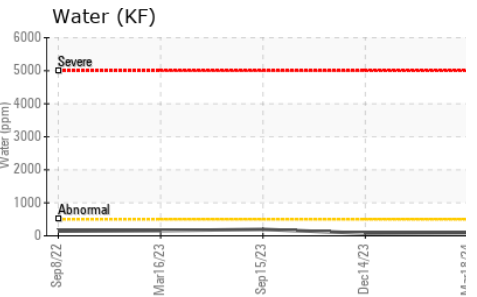
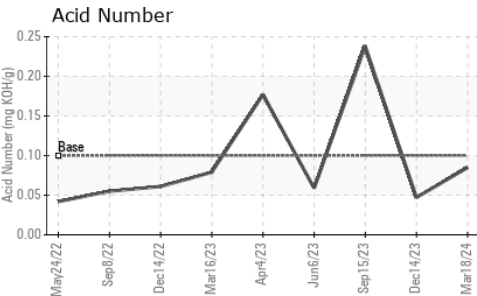
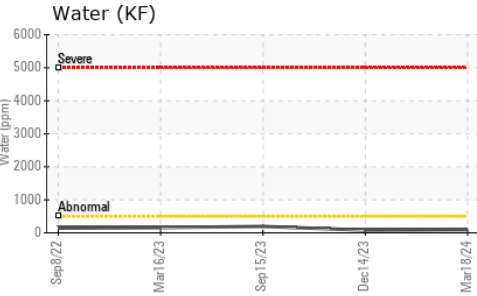
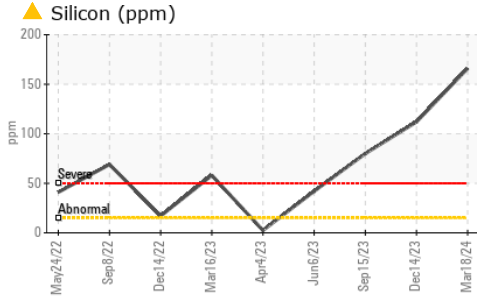
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	▲ 166	▲ 112
Sodium	ppm	ASTM D5185m	<1	0
Potassium	ppm	ASTM D5185m >20	0	0
Chlorine Content	ppm	ASTM D5185m	14.2	28.6
Water	%	ASTM D6304 >0.05	0.009	0.008
ppm Water	ppm	ASTM D6304 >500	95	80

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	---	---	173
Particles >6µm	ASTM D7647 >16000	---	---	88
Particles >14µm	ASTM D7647 >2850	---	---	20
Particles >21µm	ASTM D7647 >506	---	---	7
Particles 5-15µm	count	*NAS 1638 >16000	7082	2595
Particles 15-25µm	count	*NAS 1638 >2850	1051	314
Particles 25-50µm	count	*NAS 1638 >506	498	67
Particles 50-100µm	count	*NAS 1638 >90	20	0
Particles >100µm	count	*NAS 1638 >16	0	0
NAS 1638	Class	*NAS 1638 >6	6	4



OIL ANALYSIS REPORT

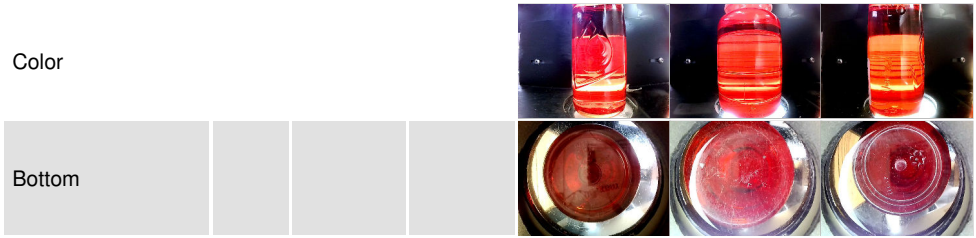


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.1	0.085	0.047	0.238

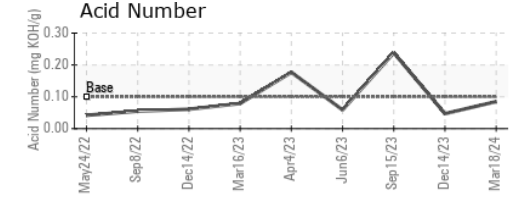
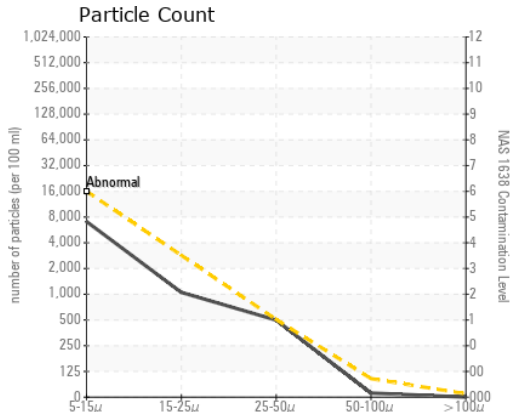
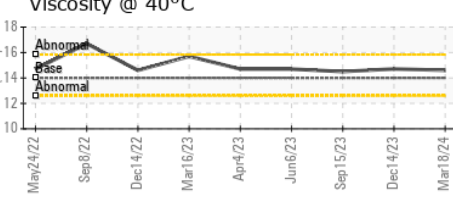
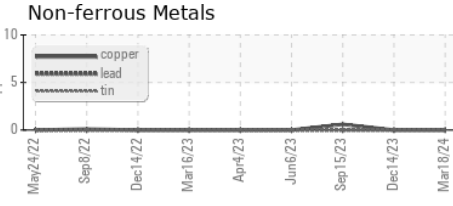
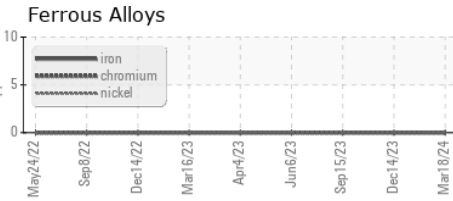
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	14.0	14.6	14.71	14.5

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0768786 **Received** : 17 Apr 2024
Lab Number : **06152434** **Tested** : 23 Apr 2024
Unique Number : 10982512 **Diagnosed** : 23 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: CHLORINEXRF, KF, PrtCountNAS)

NORTHLAND-WILLETTE INC
 12 HIGH ST
 PLAINVILLE, MA
 US 02762
 Contact: JIM ALLEN
 JALLEN@NWHYDINC.COM

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)