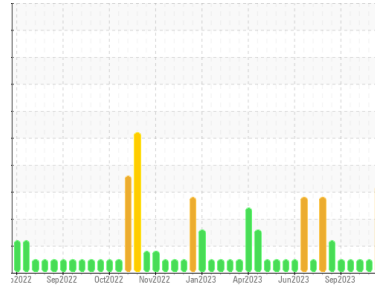




PROBLEM SUMMARY

Sample Rating Trend



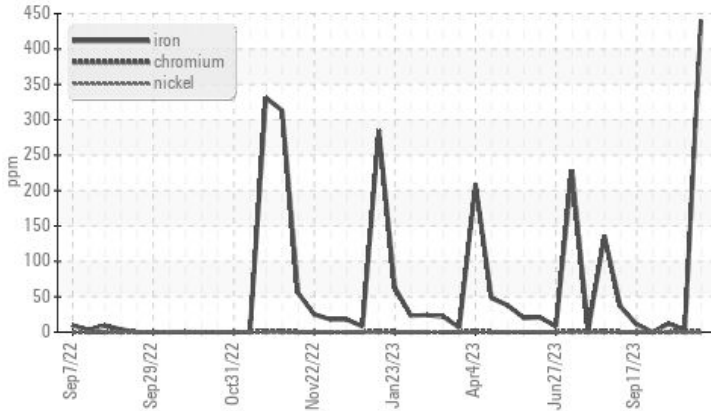
WEAR



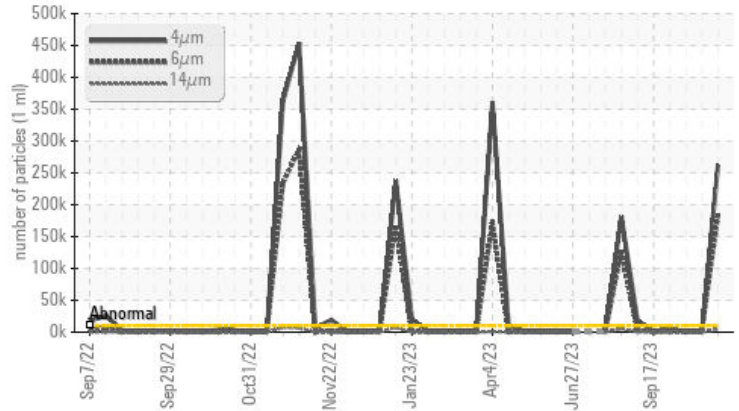
Area
PHS AND PLS SYSTEM
Machine Id
RECYCLED NH3 SYSTEM 1
Component
Refrigeration Compressor
Fluid
USPI ALT-68 SC (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	NORMAL
Iron	ppm ASTM D5185m >8	▲ 440	3	12
Particles >4µm	ASTM D7647 >10000	▲ 262241	497	993
Particles >6µm	ASTM D7647 >2500	▲ 183171	100	172
Particles >14µm	ASTM D7647 >320	▲ 4921	8	12
Particles >21µm	ASTM D7647 >80	▲ 880	2	6
Particles >38µm	ASTM D7647 >20	▲ 83	0	3
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 25/25/19	16/14/10	17/15/11

Customer Id: SMITAR
Sample No.: USP0003640
Lab Number: 06012475
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

30 Oct 2023 Diag: Doug Bogart

NORMAL



This is a baseline read-out on the submitted sample. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



29 Sep 2023 Diag: Doug Bogart

NORMAL



This is a baseline read-out on the submitted sample. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



27 Sep 2023 Diag: Doug Bogart

NORMAL



This is a baseline read-out on the submitted sample. COMP 8 PHS BEFORE FILTERS There is a trace of moisture present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

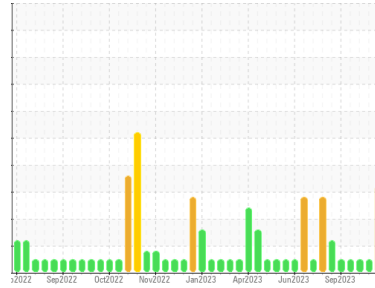
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
PHS AND PLS SYSTEM
 Machine Id
RECYCLED NH3 SYSTEM 1
 Component
Refrigeration Compressor
 Fluid
USPI ALT-68 SC (--- GAL)

DIAGNOSIS

▲ Recommendation

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

▲ Wear

The iron level is abnormal.

▲ Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0003640	USP0002949	USP0001720
Sample Date	Client Info		16 Nov 2023	30 Oct 2023	29 Sep 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	▲ 440	3	12
Chromium	ppm	ASTM D5185m >2	<1	<1	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >3	<1	0	0
Lead	ppm	ASTM D5185m >2	0	0	0
Copper	ppm	ASTM D5185m >8	0	<1	0
Tin	ppm	ASTM D5185m >4	0	<1	0
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	1	<1	0
Magnesium	ppm	ASTM D5185m	2	0	<1
Calcium	ppm	ASTM D5185m	2	0	<1
Phosphorus	ppm	ASTM D5185m	1	0	1
Zinc	ppm	ASTM D5185m	10	0	<1
Sulfur	ppm	ASTM D5185m 50	5	3	0

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	3	3	3
Sodium	ppm	ASTM D5185m	2	1	0
Potassium	ppm	ASTM D5185m >20	2	1	<1
Water	%	ASTM D6304 >0.01	0.004	0.003	0.001
ppm Water	ppm	ASTM D6304 >100	49.7	28.7	13.2

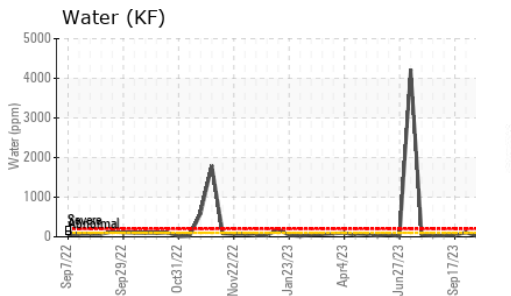
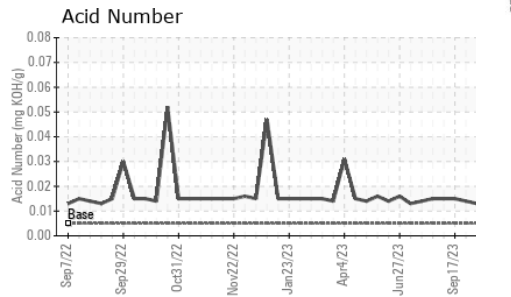
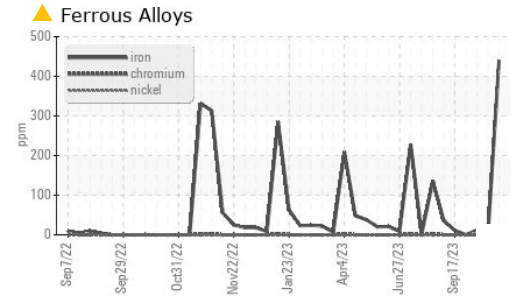
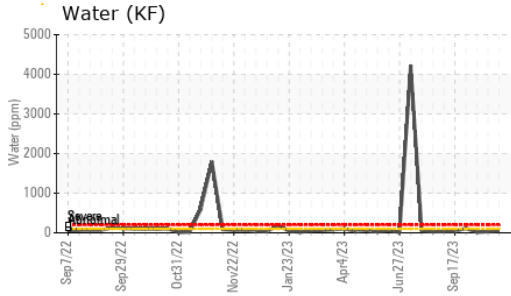
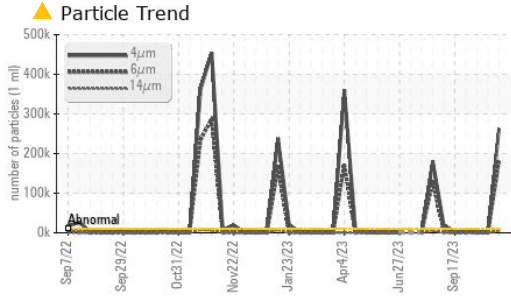
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 262241	497	993
Particles >6µm	ASTM D7647	>2500	▲ 183171	100	172
Particles >14µm	ASTM D7647	>320	▲ 4921	8	12
Particles >21µm	ASTM D7647	>80	▲ 880	2	6
Particles >38µm	ASTM D7647	>20	▲ 83	0	3
Particles >71µm	ASTM D7647	>4	4	0	1
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 25/25/19	16/14/10	17/15/11

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	0.078	0.014	0.013

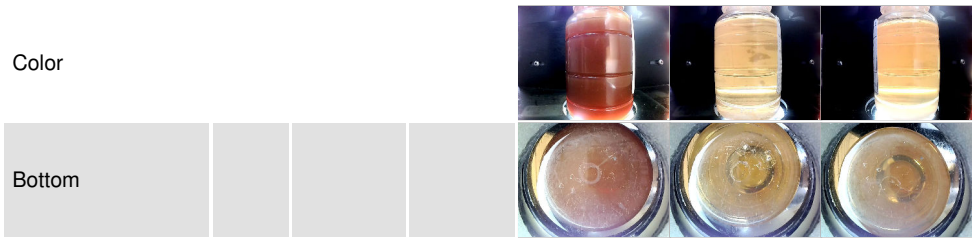
OIL ANALYSIS REPORT



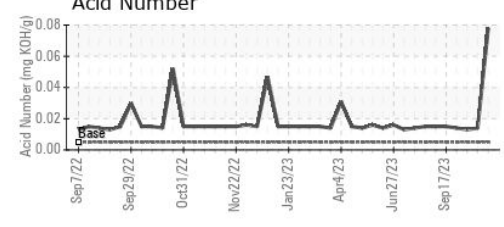
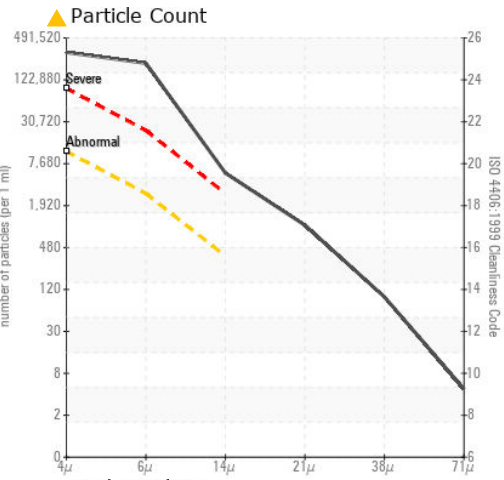
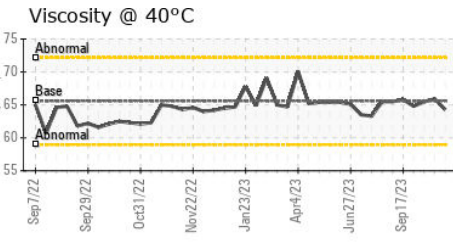
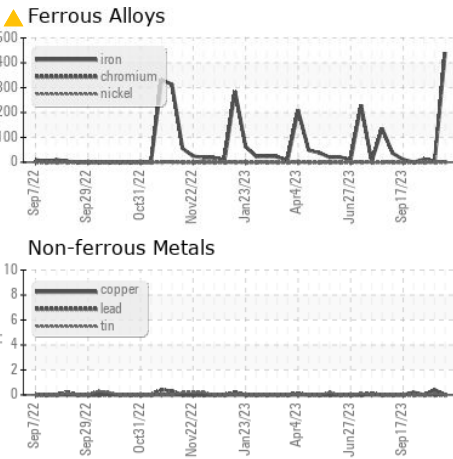
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	64.3	65.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0003640 **Received** : 20 Nov 2023
Lab Number : 06012475 **Diagnosed** : 30 Nov 2023
Unique Number : 10751619 **Diagnostician** : Doug Bogart
Test Package : IND 2

SMITHFIELD FOOD - TARHEEL
 15855 HWY. 87 WEST
 TARHEEL, NC
 US 28392
 Contact: SERVICE MANAGER

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)

T:
F: