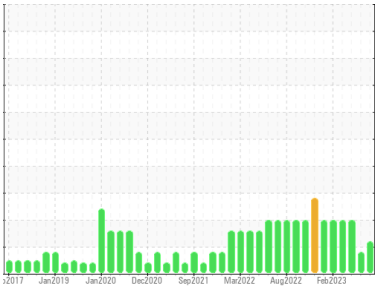
PROBLEM SUMMARY

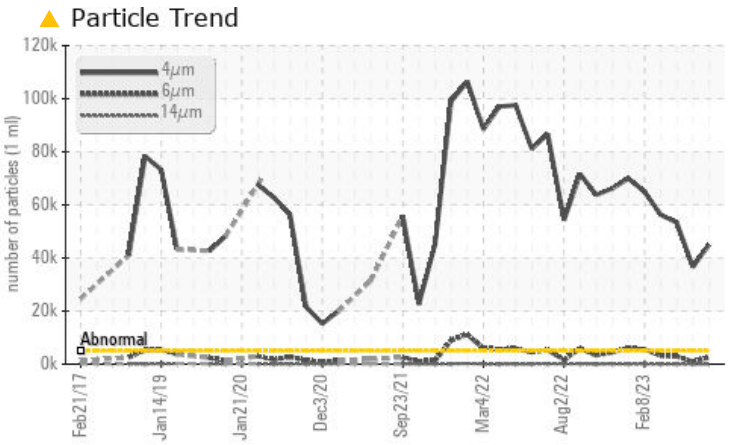
Sample Rating Trend



ISO

Area
ACID NEUTRALIZATION HYDRAULIC
Machine Id
HYDRAULIC UNIT ON SLUDGE CONVEYOR FILTER PRESS (S/N 16-6520-0122)
Component
Tank Hydraulic System
Fluid
ESSO NUTO H ISO 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **44954**	▲ 36645	▲ 53357
Particles >6µm		ASTM D7647	>1300	▲ **2642**	899	▲ 2927
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/19/13**	▲ 22/17/11	▲ 23/19/11

Customer Id: OUTCALAL
Sample No.: RP0035117
Lab Number: 05860767
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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

02 May 2023 Diag: Doug Bogart

ISO

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

30 Mar 2023 Diag: Doug Bogart

WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor.The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

27 Feb 2023 Diag: Doug Bogart

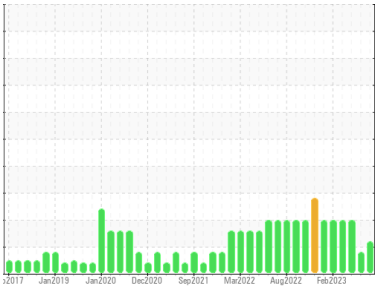
WEAR

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. 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



ISO

Area
ACID NEUTRALIZATION HYDRAULIC
Machine Id
HYDRAULIC UNIT ON SLUDGE CONVEYOR FILTER PRESS (S/N 16-6520-0122)
Component
Tank Hydraulic System
Fluid
ESSO NUTO H ISO 46 (--- 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

There is a high 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	history1	history2
Sample Number		Client Info		**RP0035117**	RP0034586	RP0030338
Sample Date		Client Info		**30 May 2023**	02 May 2023	30 Mar 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**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**4**	1	3
Chromium	ppm	ASTM D5185m	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>20	**<1**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	6	<1
Lead	ppm	ASTM D5185m	>20	**3**	0	3
Copper	ppm	ASTM D5185m	>20	**37**	36	▲ 37
Tin	ppm	ASTM D5185m	>20	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m	5	**1**	4	<1
Calcium	ppm	ASTM D5185m	50	**43**	40	45
Phosphorus	ppm	ASTM D5185m	330	**319**	345	370
Zinc	ppm	ASTM D5185m	410	**414**	429	435

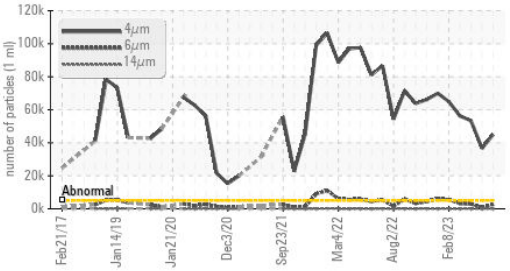
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	<1	4
Sodium	ppm	ASTM D5185m		**0**	0	<1
Potassium	ppm	ASTM D5185m	>20	**<1**	0	0
Water	%	ASTM D6304	>0.05	**0.003**	0.004	0.003
ppm Water	ppm	ASTM D6304	>500	**27.4**	46.5	38.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **44954**	▲ 36645	▲ 53357
Particles >6µm		ASTM D7647	>1300	▲ **2642**	899	▲ 2927
Particles >14µm		ASTM D7647	>160	**52**	11	20
Particles >21µm		ASTM D7647	>40	**12**	2	7
Particles >38µm		ASTM D7647	>10	**0**	0	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/19/13**	▲ 22/17/11	▲ 23/19/11

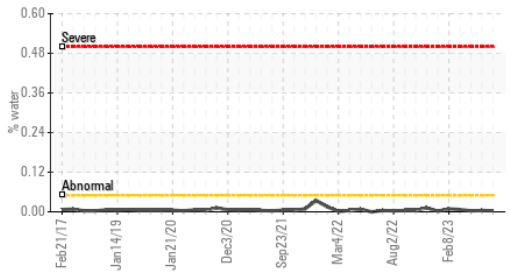
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.45	**0.25**	0.24	0.29

OIL ANALYSIS REPORT

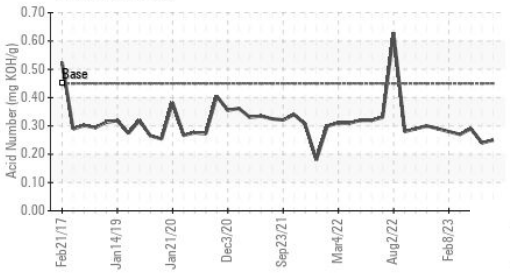
Particle Trend



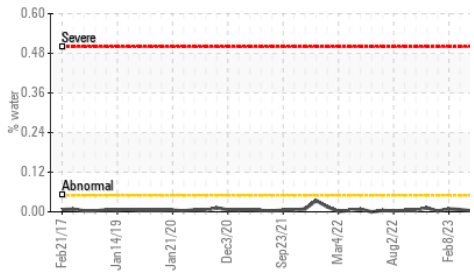
Water



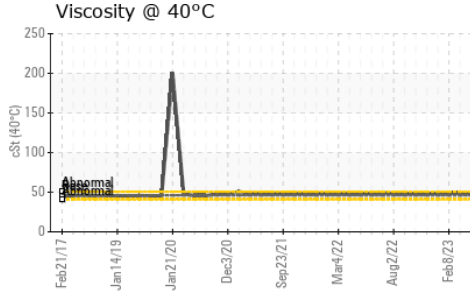
Acid Number



Water



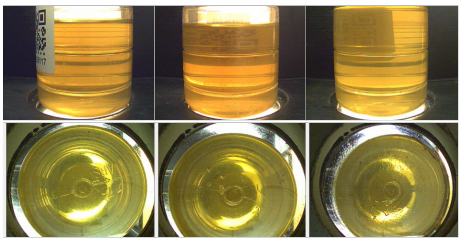
Viscosity @ 40°C



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	**LIGHT**	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

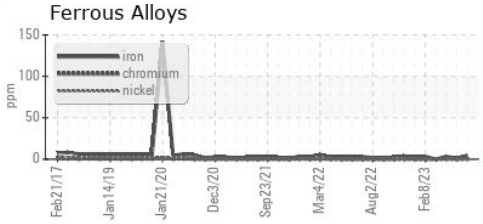
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**50.9**	48.1	48.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

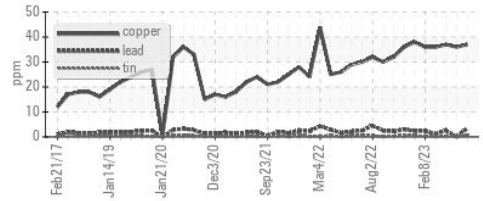


GRAPHS

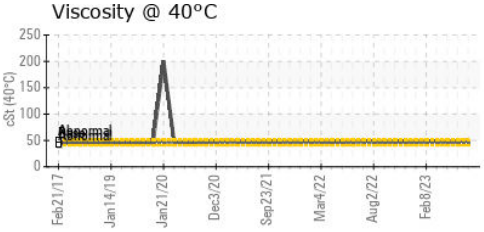
Ferrous Alloys



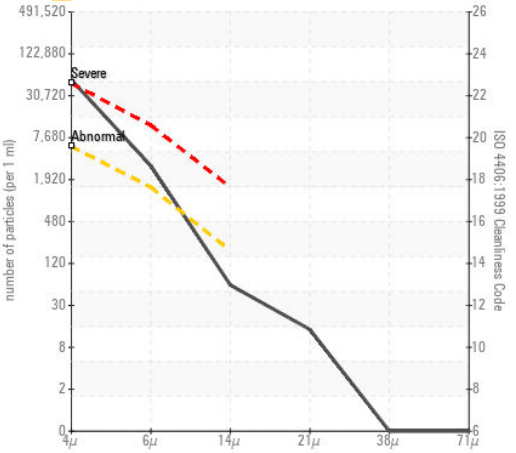
Non-ferrous Metals



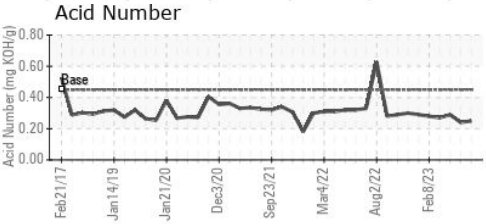
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0035117
Lab Number : 05860767
Unique Number : 10495232
Test Package : IND 2

Received : 31 May 2023
Diagnosed : 02 Jun 2023
Diagnostician : Don Baldridge

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)

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Report Id: OUTCALAL [WUSCAR] 05860767 (Generated: 07/25/2023 14:35:31) Rev: 1

Submitted By: DALE ROBINSON