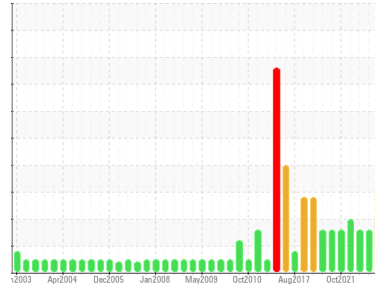




OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



Machine Id
#1 Induced Draft Fan (S/N 32400-F -1)

Component
Bearing

Fluid
ESSO NUTO H ISO 46 (675 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as ESSO NUTO H ISO 46, however, a fluid match indicates that this fluid is ISO 46 R&O Hydraulic Oil. Please confirm the oil type and grade on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0861486	WC0803237	WC0745429
Sample Date	Client Info			10 Oct 2023	20 Jul 2023	08 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				ATTENTION	ATTENTION	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>2	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	4	1	1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	<1	0
Lead	ppm	ASTM D5185(m)	>20	<1	0	0
Copper	ppm	ASTM D5185(m)	>20	<1	0	0
Tin	ppm	ASTM D5185(m)	>20	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	5	0	0	0
Calcium	ppm	ASTM D5185(m)	50	▲ <1	▲ <1	▲ 0
Phosphorus	ppm	ASTM D5185(m)	330	▲ 2	▲ 1	▲ <1
Zinc	ppm	ASTM D5185(m)	410	▲ 2	▲ 2	▲ <1
Sulfur	ppm	ASTM D5185(m)	2700	▲ 1976	▲ 1956	▲ 1972
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

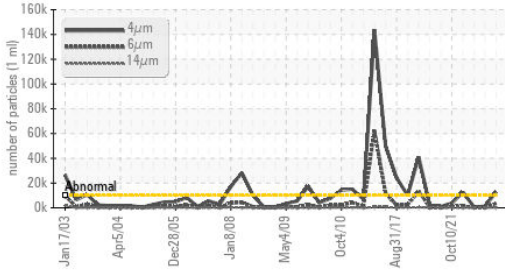
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<1	<1	<1
Sodium	ppm	ASTM D5185(m)		0	0	0
Potassium	ppm	ASTM D5185(m)	>20	0	0	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ 12853	1193	732
Particles >6µm		ASTM D7647	>2500	▲ 3437	131	120
Particles >14µm		ASTM D7647	>160	▲ 182	13	8
Particles >21µm		ASTM D7647	>40	32	6	1
Particles >38µm		ASTM D7647	>10	2	0	0
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	▲ 21/19/15	17/14/11	17/14/10

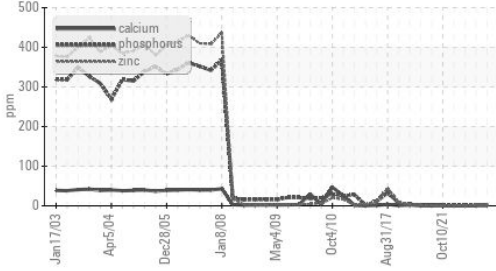


OIL ANALYSIS REPORT

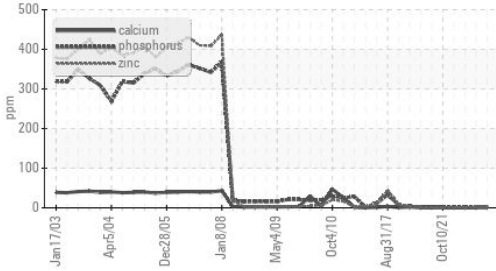
Particle Trend



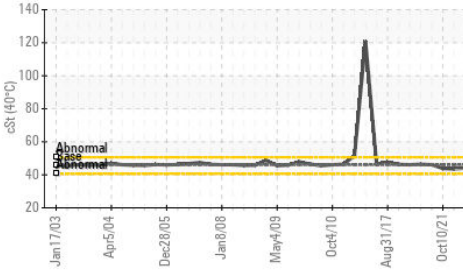
Additives



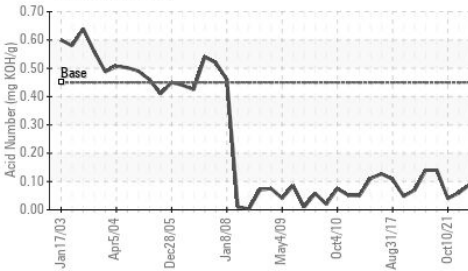
Additives



Viscosity @ 40°C



Acid Number

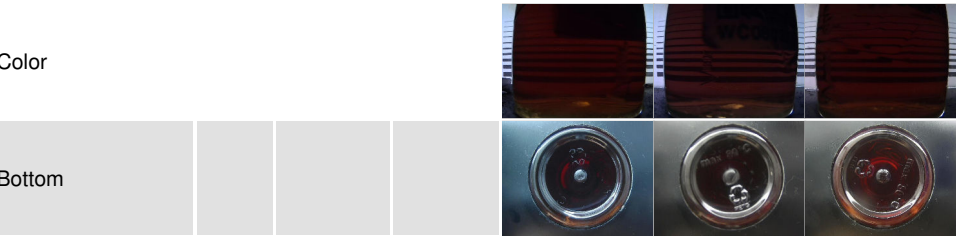


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.45	0.15	0.12	0.09

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*	>2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

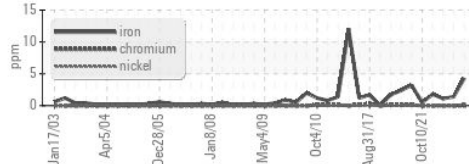
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	43.9	44.1	44.0

SAMPLE IMAGES

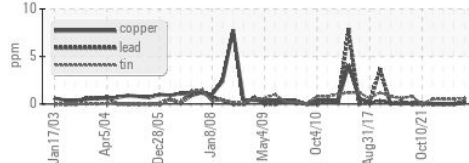


GRAPHS

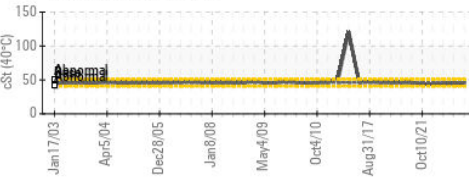
Ferrous Alloys



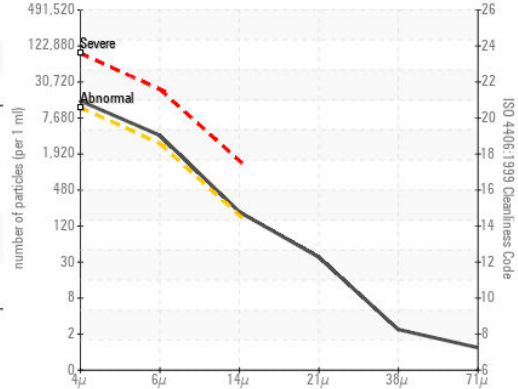
Non-ferrous Metals



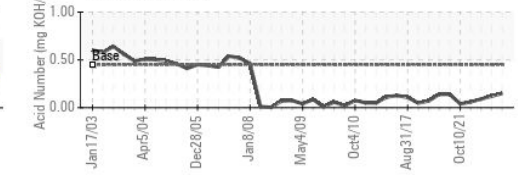
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0861486 **Received** : 19 Dec 2023
Lab Number : **02604164** **Diagnosed** : 20 Dec 2023
Unique Number : 5697249 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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