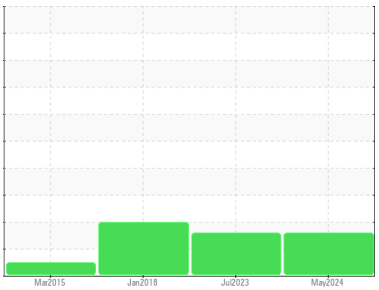
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
FILTERED RANDO HDZ
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation
This is a baseline read-out on the submitted sample. DRUM 2

Contamination
Elemental level of silicon (Si) above normal.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP245617**	USP233752	USP170923
Sample Date		Client Info		**09 May 2024**	28 Jul 2023	04 Jan 2018
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	**5**	8	8
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	<1	3
Lead	ppm	ASTM D5185m	>20	**<1**	0	<1
Copper	ppm	ASTM D5185m	>20	**3**	3	2
Tin	ppm	ASTM D5185m	>20	**<1**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	0	<1
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**0**	<1	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	25	**<1**	0	0
Calcium	ppm	ASTM D5185m	200	**49**	52	45
Phosphorus	ppm	ASTM D5185m	300	**422**	414	327
Zinc	ppm	ASTM D5185m	370	**475**	431	377
Sulfur	ppm	ASTM D5185m	2500	**1212**	1658	1576

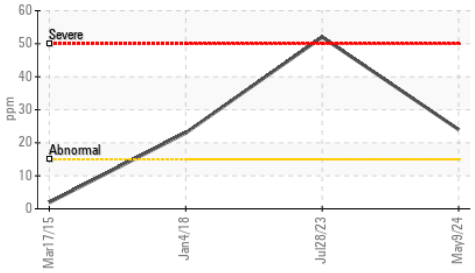
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	▲ **24**	▲ 52	▲ 23
Sodium	ppm	ASTM D5185m		**0**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**1**	<1	<1
Water	%	ASTM D6304	>0.05	**0.001**	0.006	0.004
ppm Water	ppm	ASTM D6304	>500	**9**	69.1	40

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**3681**	4960	408
Particles >6µm		ASTM D7647	>1300	**250**	483	148
Particles >14µm		ASTM D7647	>160	**13**	13	23
Particles >21µm		ASTM D7647	>40	**3**	3	9
Particles >38µm		ASTM D7647	>10	**0**	0	4
Particles >71µm		ASTM D7647	>3	**0**	0	2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**19/15/11**	19/16/11	16/14/12

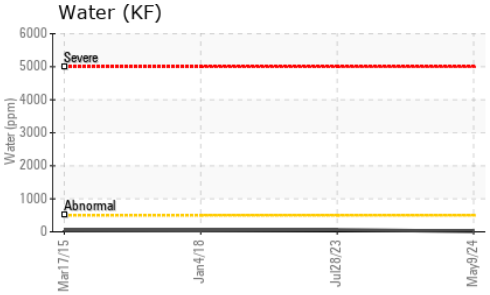
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.36**	0.33	0.268

OIL ANALYSIS REPORT

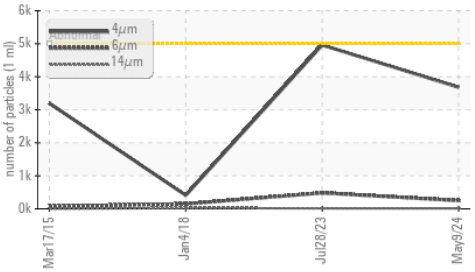
Silicon (ppm)



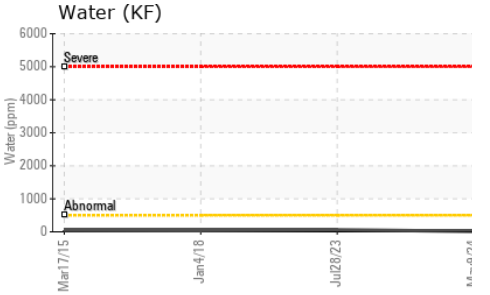
Water (KF)



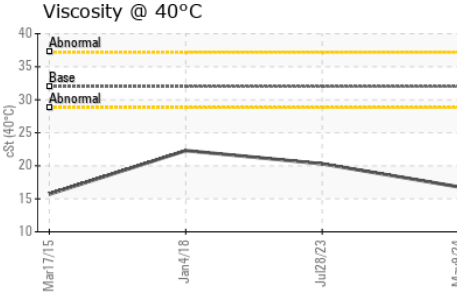
Particle Trend



Water (KF)

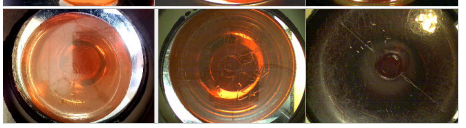


Viscosity @ 40°C



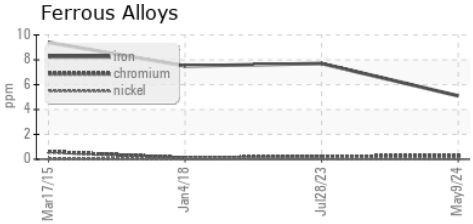
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	32	**16.8**	20.3	22.3

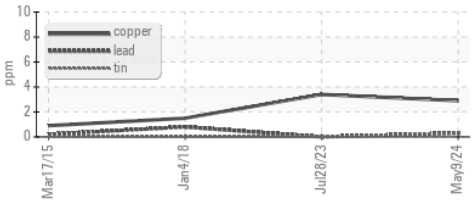
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

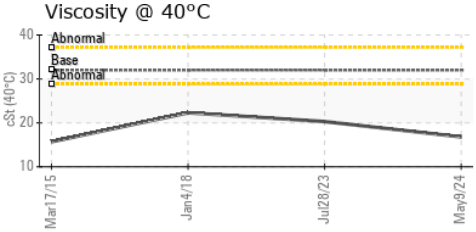
Ferrous Alloys



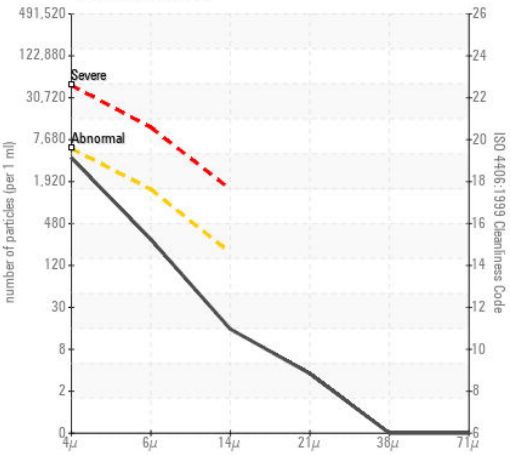
Non-ferrous Metals



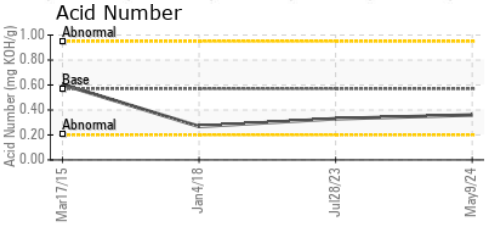
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP245617
Lab Number : 06175499
Unique Number : 11021552
Test Package : IND 2

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 2024 - Doug Bogart

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)

DOT FOODS

BURLEY, ID
US 83318
Contact: MARK GRATZER
Mgratzer@DOTFOODS.com
T:
F: