



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

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

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	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
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

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
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

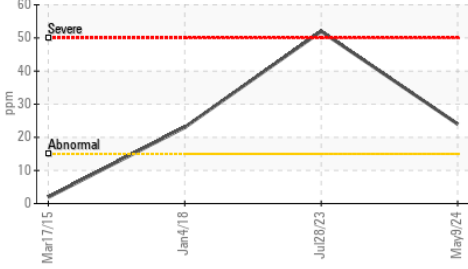
Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>15	▲ 24	▲ 52	▲ 23
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
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
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

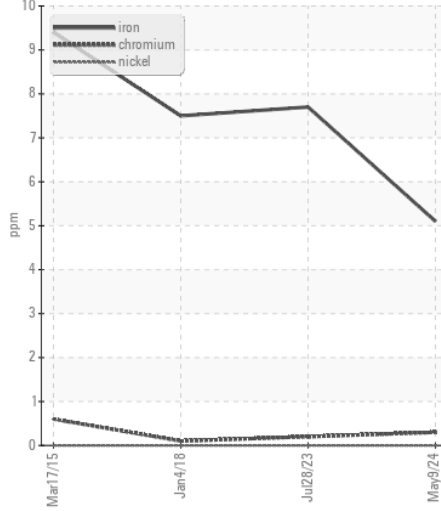
FLUID CONDITION

Sodium	ppm	ASTM D5185m		0	<1	<1
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
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.36	0.33	0.268
Visc @ 40°C	cSt	ASTM D445	32	16.8	20.3	22.3

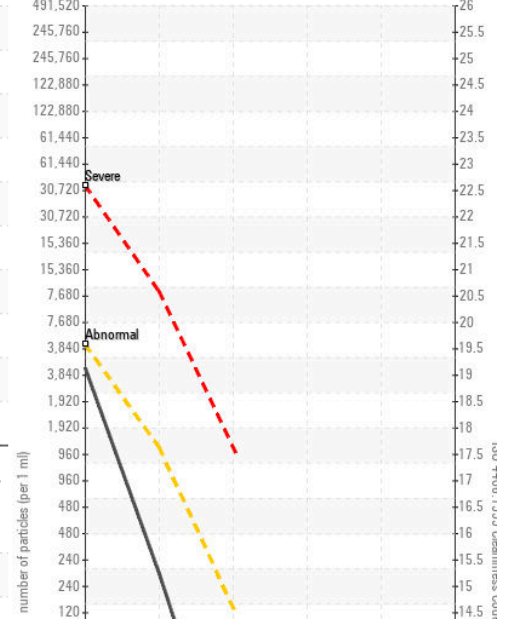
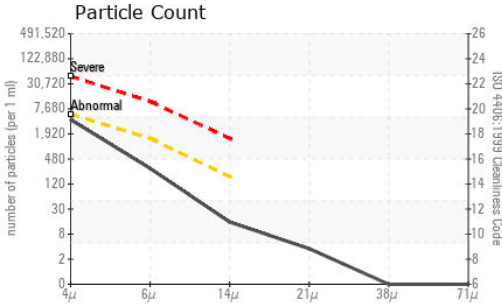
▲ Silicon (ppm)



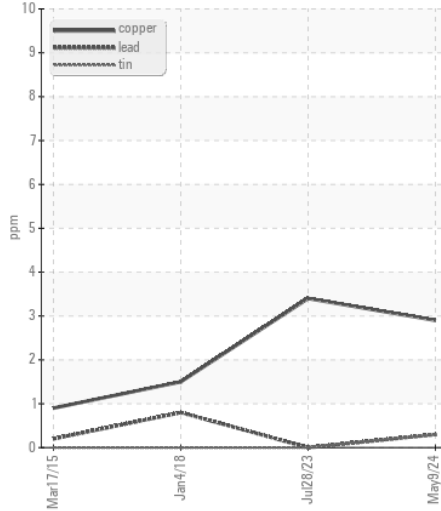
Ferrous Alloys



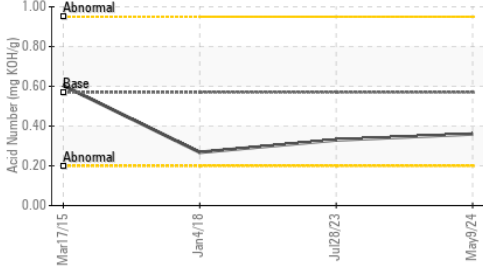
Particle Count



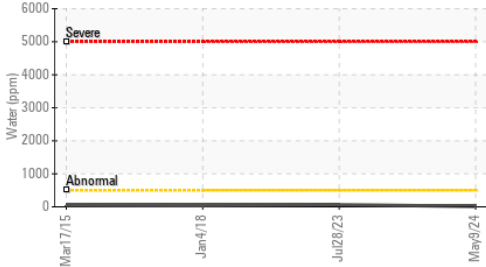
Non-ferrous Metals



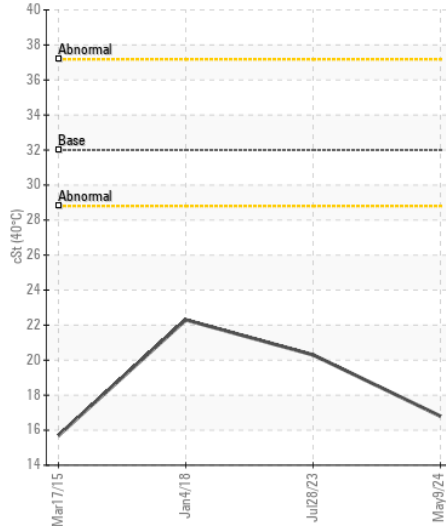
Acid Number



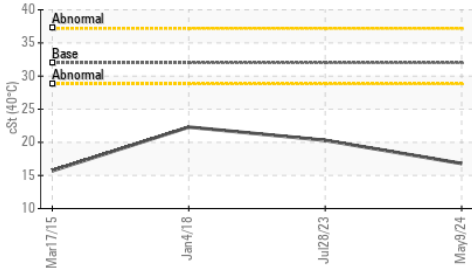
Water (KF)



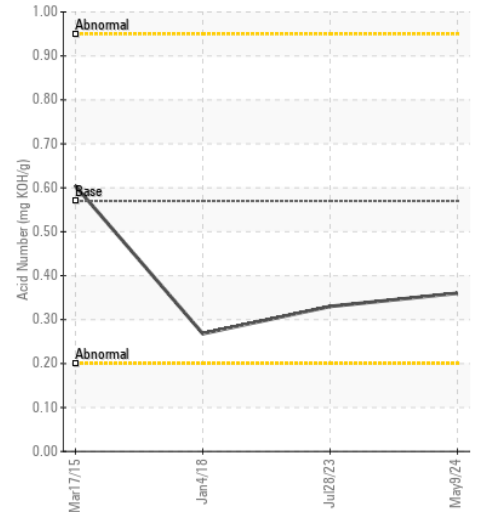
Viscosity @ 40°C



Viscosity @ 40°C



Acid Number



Certificate L2367

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

DOT FOODS

BURLEY, ID
 US 83318
 Contact: MARK GRATZER
 Mgratzer@DOTFOODS.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)

T:
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