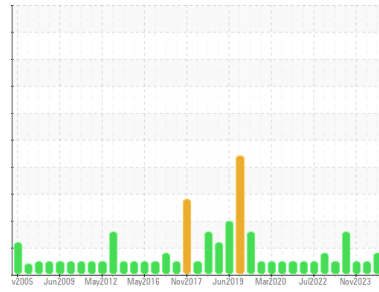




# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

North Engine Room

Machine Id

DUNHAM BUSH TYSCMIS C-9 NER (S/N 6917)

Component

Refrigeration Compressor

Fluid

USPI ALT-68 SC (--- GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

The aluminum level is abnormal. An increase in the iron level is noted. Confirmed.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### 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		USP0012726	USP0007070	USP0003089
Sample Date	Client Info		29 May 2024	13 Feb 2024	05 Nov 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	16	0	4
Chromium	ppm	ASTM D5185m >2	<1	0	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >3	▲ 10	0	0
Lead	ppm	ASTM D5185m >2	<1	0	0
Copper	ppm	ASTM D5185m >8	<1	0	0
Tin	ppm	ASTM D5185m >4	<1	0	0
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
Barium	ppm	ASTM D5185m	<1	0	0
Molybdenum	ppm	ASTM D5185m	<1	<1	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	<1	0	0
Calcium	ppm	ASTM D5185m	<1	0	0
Phosphorus	ppm	ASTM D5185m	0	0	<1
Zinc	ppm	ASTM D5185m	4	0	0
Sulfur	ppm	ASTM D5185m 50	0	6	3

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	3	2	1
Sodium	ppm	ASTM D5185m	<1	0	<1
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >0.01	0.002	0.005	0.004
ppm Water	ppm	ASTM D6304 >100	22	55	40.5

## FLUID CLEANLINESS

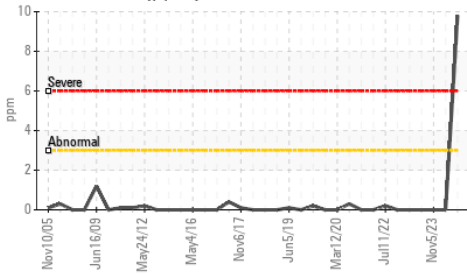
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		1566	6050	6790
Particles >6µm	ASTM D7647	>2500	276	1337	1899
Particles >14µm	ASTM D7647	>320	17	46	83
Particles >21µm	ASTM D7647	>80	2	6	14
Particles >38µm	ASTM D7647	>20	0	0	0
Particles >71µm	ASTM D7647	>4	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/18/15	18/15/11	20/18/13	20/18/14

## FLUID DEGRADATION

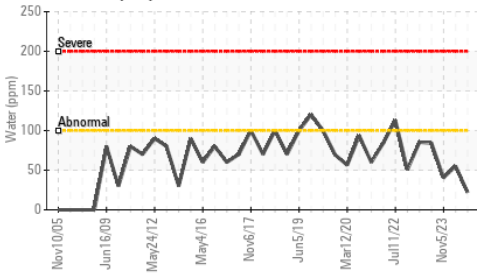
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	0.014	0.03	0.013

# OIL ANALYSIS REPORT

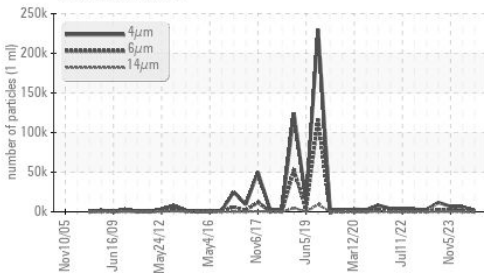
▲ Aluminum (ppm)



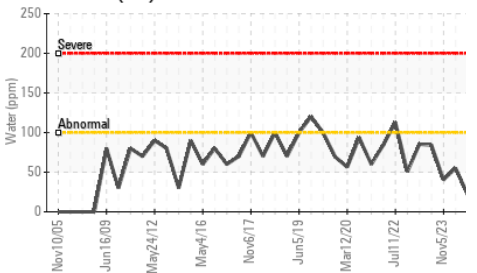
Water (KF)



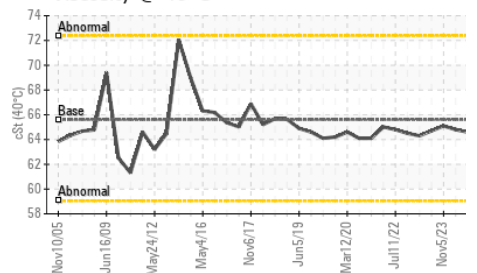
Particle Trend



Water (KF)



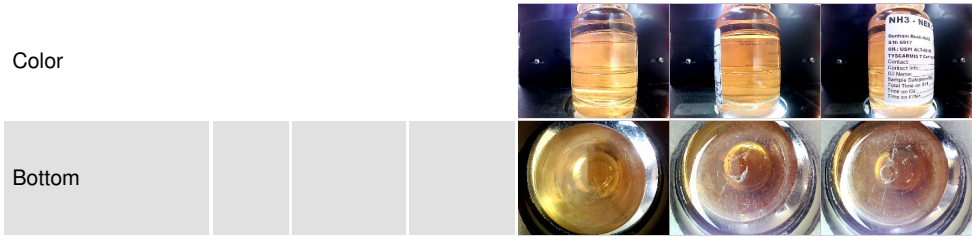
Viscosity @ 40°C



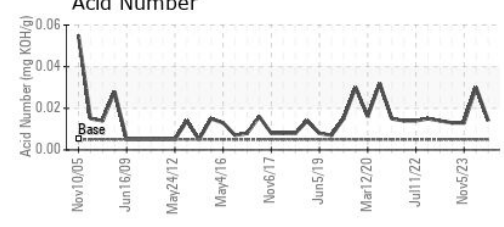
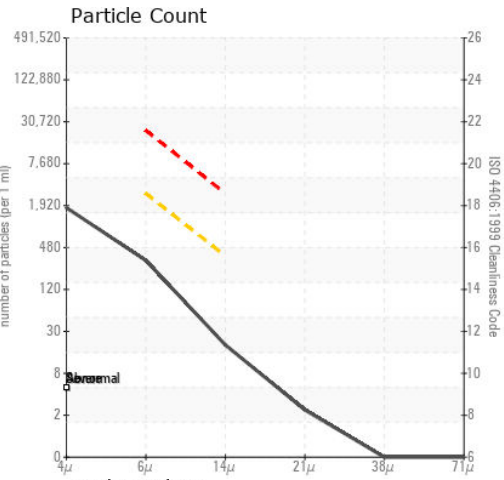
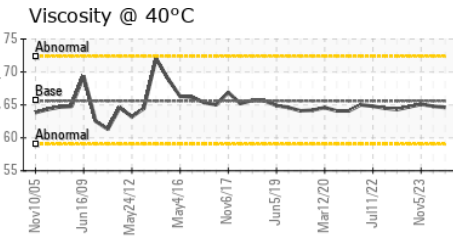
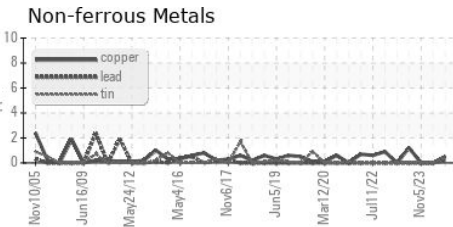
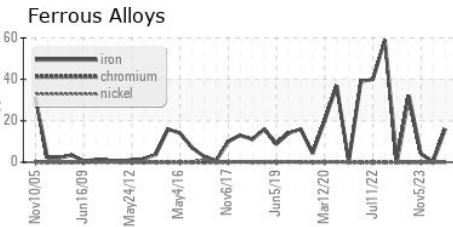
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	64.6	64.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0012726 **Received** : 30 May 2024  
**Lab Number** : 06195498 **Tested** : 06 Jun 2024  
**Unique Number** : 11057621 **Diagnosed** : 06 Jun 2024 - Doug Bogart  
**Test Package** : IND 2

**TYSON -CARTHAGE MS-USP**  
 CARTHAGE, MS  
 US 75633  
 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: