

# **OIL ANALYSIS REPORT**

Sample Rating Trend





17-046S16-4 Component Gearbox Fluic NOT GIVEN (--- GAL)

## DIAGNOSIS

Area **1A1** 

#### A Recommendation

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

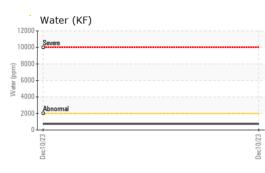
## Fluid Condition

The AN level is at the top-end of the recommended limit.

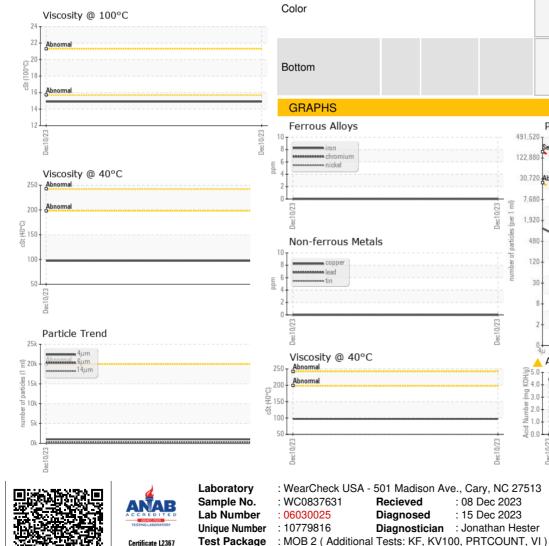
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0837631		
Sample Date		Client Info		10 Dec 2023		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	0		
Chromium	ppm	ASTM D5185m	>15	0		
Nickel	ppm	ASTM D5185m	>15	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	0		
Lead	ppm	ASTM D5185m	>100	0		
Copper	ppm		>200	0		
Tin	ppm	ASTM D5185m	>25	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		349		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		0		
Calcium	ppm	ASTM D5185m		27		
Phosphorus	ppm	ASTM D5185m		1139		
Zinc	ppm	ASTM D5185m		0		
Sulfur	ppm	ASTM D5185m		1761		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	1		
Sodium	ppm	ASTM D5185m		0		
Potassium	ppm	ASTM D5185m	>20	2		
Water	%	ASTM D6304	>0.2	0.073		
ppm Water	ppm	ASTM D6304	>2000	733		
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	994		
Particles >6µm		ASTM D7647	>5000	268		
Particles >14µm		ASTM D7647	>640	12		
Particles >21µm		ASTM D7647	>160	3		
Particles >38µm		ASTM D7647	>40	0		
Particles >71µm		ASTM D7647	>10	0		
Oil Cleanliness		ISO 4406 (c)	>21/19/16	17/15/11		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>4.43</b>		



# **OIL ANALYSIS REPORT**







recipitate scalar silt scalar bebris scalar and/Dirt scalar scalar ppearance scalar door scalar scalar mulsified Water scalar ree Water scalar rice Water scalar <u>FLUID PROPERTIES</u> risc @ 40°C cSt risc @ 100°C cSt riscosity Index (VI) Scale <u>SAMPLE IMAGES</u>	<ul> <li>*Visual</li> </ul>	NONE NONE NONE NONE NORML >0.2 Imit/base Imit/base	NONE NONE NONE NONE NOR NOR NOR NOR NEG 0 Current 97.2 14.9 160 Current no image	      history1  history1  history1 no image	history2 history2 no image no image
Precipitate scalar Silt scalar Sold scalar Sand/Dirt scalar Appearance scalar Dodor scalar Free Water scalar Free Water scalar Free Water scalar FLUID PROPERTIES Visc @ 40°C cSt Visc @ 40°C cSt Viscosity Index (VI) Scale SAMPLE IMAGES Color Color Color Color Color Color Color Color Color Color Color Color Color Color	<ul> <li>*Visual</li> <li>*Strady</li> <li>ASTM D445</li> <li>ASTM D2270</li> </ul>	NONE NONE NONE NORML >0.2 limit/base	NONE NONE NONE NORML NORML NEG NEG Current 97.2 14.9 160 Current <i>no image</i>	history1 history1 history1 no image no image	history2 history2 history2 history2 history2
Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Door scalar Emulsified Water scalar Free Water scalar FLUID PROPERTIES Visc @ 40°C cSt Visc @ 100°C cSt Visc @ 100°C cSt Viscosity Index (VI) Scale SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	<ul> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>ASTM D445</li> <li>ASTM D2270</li> </ul>	NONE NONE NORML NORML >0.2 limit/base	NONE NONE NORML NORML NEG NEG current 97.2 14.9 160 current no image	history1  no image  no image	history2 history2 history2 no image no image
Debris       scalar         Sand/Dirt       scalar         Sand/Dirt       scalar         Sand/Dirt       scalar         Sand/Dirt       scalar         Scalar       scalar         Scalar       scalar         Scalar       scalar         Emulsified Water       scalar         Free Water       scalar         FLUID PROPERTIES       //isc @ 40°C         /isc @ 100°C       cSt         /isc @ 100°C       cSt         /iscosity Index (VI)       Scale         SAMPLE IMAGES       Scale         Color       Sattom         GRAPHS       Ferrous Alloys         Image: Scalar       Image: Scalar         Sattom       Image: Scalar         Sattom       Image: Scalar         Southom       Image: Scalar         Image: Scalar       Image: Scalar         Southom       Image: Scalar	<ul> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Strady</li> <li>Method</li> <li>ASTM D445</li> <li>ASTM D4270</li> </ul>	NONE NORML NORML >0.2 limit/base limit/base	NONE NORML NORML NEG NEG current 97.2 14.9 160 current no image	    history1   history1 no image	history2 history2 history2 no image no image
Sand/Dirt scalar scalar ppearance scalar scalar scalar scalar FLUID PROPERTIES /isc @ 40°C cSt /isc @ 100°C cSt /isc @ 100°C cSt /iscosity Index (VI) Scale SAMPLE IMAGES Color GRAPHS Ferrous Alloys Ferrous Alloys Non-ferrous Metals	<ul> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>Method</li> <li>ASTM D445</li> <li>ASTM D4270</li> </ul>	NONE NORML NORML >0.2 limit/base limit/base	NONE NORML NORML NEG Current 97.2 14.9 160 Current no image	   history1   history1 no image	history2 history2 history2 no image no image
Appearance       scalar         Dodor       scalar         Scalar       scalar         Emulsified Water       scalar         Free Water       scalar         FLUID PROPERTIES       ////////////////////////////////////	<ul> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>ASTM D445</li> <li>ASTM D4270</li> </ul>	NORML NORML >0.2 limit/base limit/base	NORML NORML NEG Current 97.2 14.9 160 Current no image	   history1   history1 no image	history2 history2 history2 no image no image
Dodor       scalar         Emulsified Water       scalar         Emulsified Water       scalar         Free Water       scalar         FLUID PROPERTIES       ////////////////////////////////////	<ul> <li>*Visual</li> <li>*Visual</li> <li>*Visual</li> <li>Method</li> <li>ASTM D445</li> <li>ASTM D445</li> <li>ASTM D2270</li> </ul>	NORML >0.2 limit/base limit/base	NORML NEG NEG current 97.2 14.9 160 current no image	 history1   history1 no image no image	 history2   history2 no image
Emulsified Water       scalar         Free Water       scalar         FLUID PROPERTIES       /isc @ 40°C         /isc @ 100°C       cSt         /iscosity Index (VI)       Scale         SAMPLE IMAGES       Scale         Color       State         Bottom       Image: State         GRAPHS       Ferrous Alloys         Image: State       Image: State         Non-ferrous Metals       Image: State	*Visual *Visual method ASTM D445 ASTM D445 ASTM D2270	>0.2 limit/base limit/base	NEG NEG current 97.2 14.9 160 current no image	 history1   history1 no image	 history2   history2 no image
Free Water scalar FLUID PROPERTIES /isc @ 40°C cSt /isc @ 100°C cSt /iscosity Index (VI) Scale SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys Ferrous Alloys	* Visual method ASTM D445 ASTM D445 ASTM D2270	limit/base limit/base	NEG current 97.2 14.9 160 current no image no image	 history1   history1 no image	history2 history2 history2 no image no image
FLUID PROPERTIES         /isc @ 40°C       cSt         /isc @ 100°C       cSt         /iscosity Index (VI)       Scale         SAMPLE IMAGES         Color         Bottom         GRAPHS         Ferrous Alloys         Image: solution micked         Non-ferrous Metals	method ASTM D445 ASTM D445 ASTM D2270	limit/base	current 97.2 14.9 160 current no image no image	history1 history1 no image no image	history2 history2 no image no image
Visc @ 40°C cSt Visc @ 100°C cSt Viscosity Index (VI) Scale SAMPLE IMAGES Color Color Bottom GRAPHS Ferrous Alloys	ASTM D445 ASTM D445 ASTM D2270	limit/base	97.2 14.9 160 current no image no image	no image	no image
Visc @ 100°C cSt Viscosity Index (VI) Scale SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys Image: Solution of the second secon	ASTM D445 ASTM D2270	491,52	14.9 160 current no image no image	 history1 no image no image	no image
Viscosity Index (VI) Scale SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	ASTM D2270	491,52	160 current no image no image	no image	no image
Viscosity Index (VI) Scale SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys		491,52	current no image no image Particle Coun	history1 no image no image	history2 no image no image
Color Bottom GRAPHS Ferrous Alloys	method	491,52	no image no image Particle Coun	no image no image	no image no image
Color Bottom GRAPHS Ferrous Alloys		491,52	no image no image Particle Coun	no image no image	no image no image
Bottom GRAPHS Ferrous Alloys ion chromium nickel Non-ferrous Metals			no image Particle Coun	no image	no image
GRAPHS Ferrous Alloys			Particle Coun	-	
Ferrous Alloys			Particle Coun	-	_
GRAPHS Ferrous Alloys			Particle Coun	-	_
Ferrous Alloys				t	т26
iron chromium nickel				t	т26
iron chromium nickel			<sup>0</sup> L		т26
Non-ferrous Metals		122.88			
Non-ferrous Metals			0-		-24
Non-ferrous Metals		20.72			
Non-ferrous Metals		30,72	0 Abnormal		-22
Non-ferrous Metals		€ 7.68	0-		-20
Non-ferrous Metals		100 100 100 100 100 100 100 100 100 100	0-		-20 -18 -16 -14
T		De los		· ·	10
copper		48 piptied			10
		jage 12	0-		-14
tin		E 3	0	\	-12
			8-		+10
Dec10/23		Dec10/23	2-		-8
Dec1		Dec1	0		
Viscosity @ 40°C			Acid Number	14μ 21μ	38µ 71µ
Abnormal		95.			
Abnormal		9 4.	0-		
•		<u>ل</u> 3.	0-		
		- g 2.	0		
0/23					201
Dec10/23		Dec10/23	Dec10/23		contrad contrad

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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