

OIL ANALYSIS REPORT



Machine Id **56076** Component **Hydraulic System** Fluid **AW HYDRAULIC OIL ISO 32 (--- GAL)**

DIAGNOSIS

Recommendation

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 acceptable for this fluid. The condition of the oil is suitable for further service.

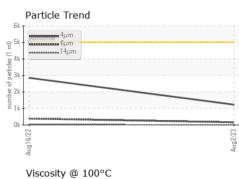
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0833583	WC0480854	
Sample Date		Client Info		02 Aug 2023	16 Aug 2022	
Machine Age	hrs	Client Info		2000	2000	
Oil Age	hrs	Client Info		2000	2000	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	9	7	
Chromium	ppm	ASTM D5185m	>10	<1	0	
Nickel	ppm	ASTM D5185m	>10	<1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>10	2	0	
Lead	ppm	ASTM D5185m	>10	- <1	0	
Copper	ppm		>75	1	<1	
Tin	ppm	ASTM D5185m	>10	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	
	ppm	ASTM D5185m	5	0	<1	
Molybdenum	ppm	ASTM D5185m	5	۰ <1	<1	
Manganese	ppm	ASTM D5185m	5	<1	0	
Magnesium	ppm	ASTM D5185m	25	2	0	
Calcium	ppm	ASTM D5185m	200	50	54	
		ASTM D5185m	300	357	349	
Phosphorus	ppm	ASTM D5185m	370	436	395	
Zinc	ppm					
Sulfur	ppm	ASTM D5185m	2500	3560	3238	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	2	<1	
	ppm	ASTM D5185m		0	0	
Potassium	ppm	ASTM D5185m		<1	0	
FLUID CLEANLINE	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	1233	2855	
Particles >6µm		ASTM D7647	>1300	161	389	
Particles >14µm		ASTM D7647	>160	6	28	
Particles >21µm		ASTM D7647	>40	1	5	
Particles >38µm		ASTM D7647	>10	0	0	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/10	19/16/12	
FLUID DEGRADA	ΓΙΟΝ	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.28	0.32	
3:54:31) Bev: 1			0.0	ntaat/l agation	BRETT HIGGIN	

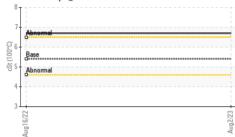
Report Id: CARHIGMO [WUSCAR] 06211552 (Generated: 06/21/2024 23:54:31) Rev: 1

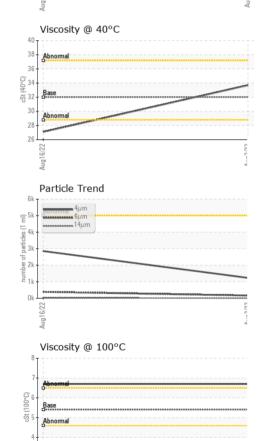
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OIL ANALYSIS REPORT







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	>0.1	NEG	NEG	
Free Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID PROPERT		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	33.7	27.1	
Visc @ 100°C	cSt	ASTM D445	5.4	6.7	6.7	
Viscosity Index (VI)	Scale	ASTM D2270	102	160	220	
SAMPLE IMAGES	\$	method	limit/base	current	history1	history2
Color						no image
			1			
Bottom						no image
Bottom						no image
Bottom GRAPHS						no image
GRAPHS Ferrous Alloys			401.520	Particle Count		
GRAPHS Ferrous Alloys			491,520	Particle Count		
GRAPHS Ferrous Alloys			491,520			no image
GRAPHS Ferrous Alloys			122,880	Severe	t	-24
GRAPHS Ferrous Alloys			122,880 30,720	Severe	t	-24 -24 -22
GRAPHS Ferrous Alloys			122,880 30,720	Severe	t.	-24 -24 -22
GRAPHS Ferrous Alloys			122,880 30,720	Severe	t.	-24 -24 -22
GRAPHS Ferrous Alloys			122,880 30,720	Severe	t	-24 -24 -22
GRAPHS Ferrous Alloys	5		122,880 30,720	Severe	L	-24 -24 -22
GRAPHS Ferrous Alloys	5		122,880 30,720	Severe	t	-24 -24 -22
GRAPHS Ferrous Alloys	5		122.880 30.720 Tem 1.920 Tem 1.920 480 1.920 480 120	Severe	L	-24 -24 -22
GRAPHS Ferrous Alloys	5		122,880 30,720	Severe	L	-24
GRAPHS Ferrous Alloys	5		122.880 30.720 Tem 1.920 Tem 1.920 480 1.920 480 120	Severe	L	-22
GRAPHS Ferrous Alloys	5		122.880 30.720 ECCODING ECCODING ECCODING ELECTION SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPEED SPE	Severe	t	-24 -22 -22 -20 -18 -16 -14 -14 -12
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GRAPHS Ferrous Alloys	5		122.880 30.720 7.680 2000 1.920 1.920 1.920 480 1.920 480 1.920 480 30 30 20 30 480 30 20 480 30 20 480 480 30 20 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		24 -24 -22 -20 -18 -14 -14 -12 -10 -8
GRAPHS Ferrous Alloys	5		122.880 30.720 7.680 2000 1.920 1.920 1.920 480 1.920 480 1.920 480 30 30 20 30 480 30 20 480 30 20 480 480 30 20 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		24 -24 -22 -20 -18 -14 -14 -12 -10 -8
GRAPHS Ferrous Alloys	5		122.880 30.720 7.680 2000 1.920 1.920 1.920 480 1.920 480 1.920 480 30 30 20 30 480 30 20 480 30 20 480 480 30 20 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		24 -24 -22 -20 -18 -14 -14 -12 -10 -8
GRAPHS Ferrous Alloys	5		122.880 30.720 7.680 2000 1.920 1.920 1.920 480 1.920 480 1.920 480 30 30 20 30 480 30 20 480 30 20 480 480 30 20 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		24 -24 -22 -20 -18 -14 -14 -12 -10 -8
GRAPHS Ferrous Alloys	3		122.880 30.720 7.680 2000 1.920 1.920 1.920 480 1.920 480 1.920 480 30 30 20 30 480 30 20 480 30 20 480 480 30 20 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		24 -24 -22 -20 -18 -14 -14 -12 -10 -8
GRAPHS Ferrous Alloys	3		122,880 30,720 (iii 1 a) 1,920 (iii 1 a) 1,920 120 120 120 120 120 120 120 120 120 1	Abnomal		24 -24 -22 -20 -18 -14 -14 -12 -10 -8
GRAPHS Ferrous Alloys	3		122.880 30.720 7.680 2000 1.920 1.920 1.920 480 1.920 480 1.920 480 30 30 20 30 480 30 20 480 30 20 480 480 30 20 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		24 -22 -22 -18 -16 -12 -12 -10 -10 -8 -8

: 17 Jun 2024

: 18 Jun 2024

: 18 Jun 2024 - Angela Borella

Received

Diagnosed

Tested



* - 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)

: WC0833583

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Test Package : MOB 2 (Additional Tests: KV100, VI)

Laboratory

Sample No.

Lab Number : 06211552

Unique Number : 11084416

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Certificate 12367

Contact/Location: BRETT HIGGINS - CARHIGMO