

OIL ANALYSIS REPORT

NORMA

Machine Id QC240415IND2

Hydraulic System AW HYDRAULIC OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

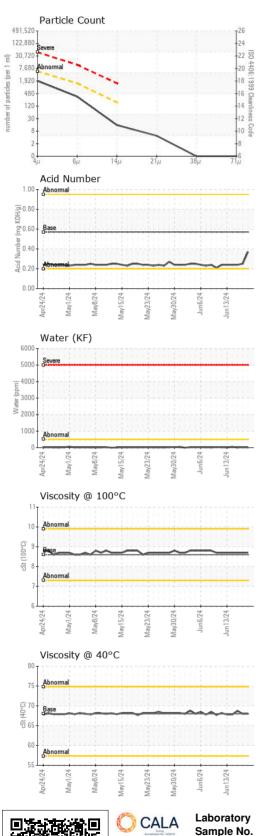
Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0948179	WC0948177	WC0948175
Sample Date		Client Info		21 Jun 2024	19 Jun 2024	17 Jun 2024
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				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0	0	0
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	0
Lead	ppm	ASTM D5185(m)	>20	0	0	0
Copper	ppm	ASTM D5185(m)	>20	<1	0	0
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<1	<1	0
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	5	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	25	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	200	48	45	49
Phosphorus	ppm	ASTM D5185(m)	300	225	224	233
Zinc	ppm	ASTM D5185(m)	370	296	280	300
Sulfur	ppm	ASTM D5185(m)	2500	5246	4969	5374
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	0	0	0
Sodium	ppm	ASTM D5185(m)		0	0	0
Potassium	ppm	ASTM D5185(m)	>20	0	0	0
Water	%	ASTM D6304*	>0.05	0.001	0.003	0.001
ppm Water	ppm	ASTM D6304*	>500	13	27	13
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	1705	276	278
Particles >6µm		ASTM D7647	>1300	301	73	70
Particles >14µm		ASTM D7647	>160	13	9	8
Particles >21µm		ASTM D7647	>40	4	3	2
Particles >38µm		ASTM D7647	>10	0	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/15/11	15/13/10	15/13/10



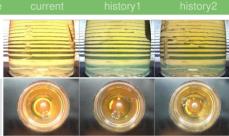
OIL ANALYSIS REPORT



FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.37	0.25	0.24
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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	68.0	68.0	68.7
Visc @ 100°C	cSt	ASTM D7279(m)	8.6	8.7	8.7	8.7
Viscosity Index (VI)	Scale	ASTM D2270*	96	99	99	97
SAMPLE IMAGES	6	method	limit/base	current	history1	history2

Color

Bottom



(166. ET	🔿 CALA	Laboratory	: WearCheck - C8-1175 A	Appleby Line,	Burlington, ON L7L 5H9	WearCheck Quality Control Sample Results
양태는	Accreditation No. 120/2719	Sample No.	: WC0948179	Received	: 21 Jun 2024	
	ISO 17025:2017	Lab Number	: 02643424	Tested	: 24 Jun 2024	Burlington, ON
	Accredited	Unique Number	: 5800963	Diagnosed	: 24 Jun 2024 - Kevin Marsor	n CA
	Laboratory	Test Package	: IND 2 (Additional Tests	: KF, KV100,	TAN Man, VI)	Contact: Dorian Anderson
「昭和日	To discuss this	sample report,	contact Customer Service	e at 1-800-268	8-2131.	dorian.anderson@wearcheck.com
	Test denoted (*) outside scope	e of accreditation, (m) meti	hod modified,	(e) tested at external lab.	T: (289)291-4652
(94°T)P	Validity of resu	Its and interpre	tation are based on the sa	mple and info	ormation as supplied.	F: (905)569-8605

Report Id: QA [WCAMIS] 02643424 (Generated: 06/24/2024 16:48:06) Rev: 1

Submitted By: ? Page 2 of 2