

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

GFL 122 Arrow Road - C13100 Machine Id AG172

Component Hydraulic System Fluid NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample. (Customer Sample Comment: IND2-ICP KV AN KF)

Wear

{not applicable}

Contamination

{not applicable}

Fluid Condition

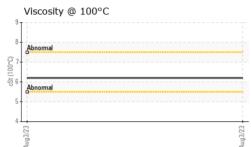
{not applicable}

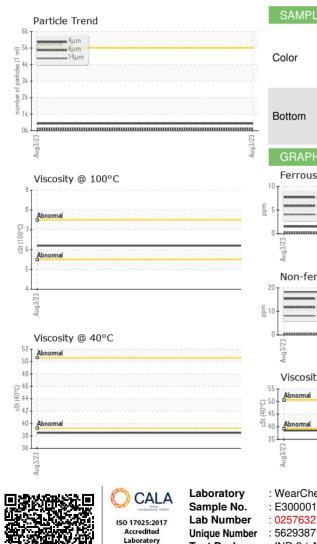
			,	Aug2023		
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		E30000192		
Sample Date		Client Info		03 Aug 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	2		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>20	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		<1		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>20	<1		
Copper	ppm	ASTM D5185(m)	>20	18		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1		
Barium	ppm	ASTM D5185(m)		20		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		3		
Calcium	ppm	ASTM D5185(m)		226		
Phosphorus	ppm	ASTM D5185(m)		399		
Zinc	ppm	ASTM D5185(m)		468		
Sulfur	ppm	ACTM DE10E(m)				
Lithium		ASTM D5185(m)		2056		
	ppm	ASTM D5185(m) ASTM D5185(m)		2056 <1		
CONTAMINANTS		,	limit/base		 history1	
CONTAMINANTS		ASTM D5185(m)	limit/base >15	<1		
CONTAMINANTS Silicon	ppm	ASTM D5185(m) method		<1 current		
CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185(m) method ASTM D5185(m)		<1 current <1	history1 	 history2
CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	>15	<1 current <1 2	history1 	 history2
	ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15 >20	<1 current <1 2 1	history1 	 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLINE	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304*	>15 >20 >0.05	<1 current <1 2 1 0.004	history1 	+ history2
CONTAMINANTS Silicon Sodium Potassium Water opm Water FLUID CLEANLINE	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304*	>15 >20 >0.05 >500	<1 current <1 2 1 0.004 42.5	history1 	 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLINE Particles >4µm	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304*	>15 >20 >0.05 >500 limit/base	<1 current <1 2 1 0.004 42.5 current	history1 history1	+ history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLINE Particles >4µm Particles >6µm	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* Method ASTM D7647	>15 >20 >0.05 >500 limit/base >5000	<1 current <1 2 1 0.004 42.5 current 431	history1 history1 	 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304* Method ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160	<1 current <1 2 1 0.004 42.5 current 431 106	history1 history1 	 history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304* Method ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160	<1 current <1 2 1 0.004 42.5 current 431 106 6	history1 history1 history1	 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40	<1 current <1 2 1 0.004 42.5 current 431 106 6 2	history1 history1	history2 history2 history2



OIL ANALYSIS REPORT







FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.50		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.05	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		38.5		
Visc @ 100°C	cSt	ASTM D7279(m)		6.2		
Viscosity Index (VI)	Scale	ASTM D2270*		107		
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys				Particle Count		
iron 1			491,520			1 ²⁶
- chromium			122,880	Severe		-24
			30,720	1		-22
			1,680 E	Abnormal		-20 ^{SO} 44
Aug3/23			Aug 27.23 Aug 27.23 480 480 480		·	-20 4406:1999 Cleanlin -16 Cleanlin -14
Non-ferrous Metal	s					-16 C
copper 1						-14 an
-			admin 30			-12 Code
			8			-10
23 23						-8
Aug3/23			Aug3/23			
Viscosity @ 40°C				4μ 6μ	14μ 21μ	38µ 71µ
Abnormal			₩ NO.60			
) - P			je 0.40			
Abnormal			- a 0.20			
5 E2			00.00,000 00.00,000 00.00 Wumber Acid Number 00.00 00.00	//23		23
Aug3/2			Aug3/23 Aci	Aug3/23		Aug3/23
: 02576327	Receive Diagnos Diagnos	d : 16 / ed : 22 / tician : Tati	lington, ON L Aug 2023 Aug 2023 iana Sorkina	7L 5H9 Envi i		Solutions Ltd. Victoria Street Cobourg, ON CA K9A 5H5

 Laboratory
 Test Package
 : IND 2 (Additional Tests: KF, KV100, VI)

 To discuss this sample report, contact Customer Service at 1-800-268-2131.

 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

 Validity of results and interpretation are based on the sample and information as supplied.

640 Victoria Street Cobourg, ON CA K9A 5H5 Contact: Fred Kosseim fkosseim@e360s.ca T: (905)372-2251 F: (905)372-1658