

# **OIL ANALYSIS REPORT**

**BATCH 12032024-01** 

Component **Hydraulic System** 

PANOLIN HLP SYNTH 46 (--- GAL)

# Sample Rating Trend NORMAL

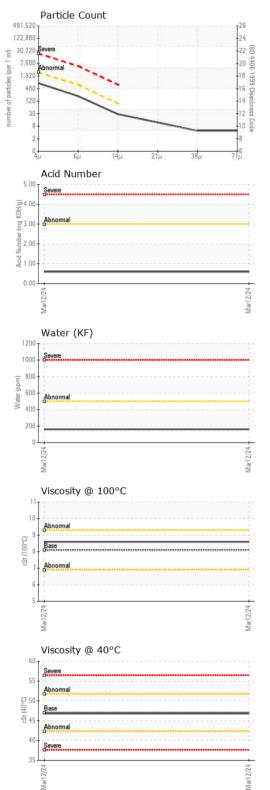
## Recommendation

Il s'agit du relevé de base de l'échantillon soumis.

				Mar2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC		
Sample Date		Client Info		12 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	<1		
Lead	ppm	ASTM D5185(m)	>10	0		
Copper	ppm	ASTM D5185(m)		0		
Tin	ppm	ASTM D5185(m)	>10	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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current	history1	history2
	ppm		0		,	
Boron		ASTM D5185(m)	0	<1 0 0		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 0		
Boron Barium Molybdenum Manganese Magnesium	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0	<1 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185(m)	0 0 0 0	<1 0 0 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 0 1700	<1 0 0 0 0 <1 5 1522		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 0 1700	<1 0 0 0 0 <1 5 1522		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 0 1700	<1 0 0 0 0 <1 5 1522 2 977		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 0 1700	<1 0 0 0 0 <1 5 1522		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 0 1700	<1 0 0 0 0 <1 5 1522 2 977		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350	<1 0 0 0 <1 5 1522 2 977 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350	<1 0 0 0 <1 5 1522 2 977 <1		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350	<1 0 0 0 <1 5 1522 2 977 <1 current <1 <1 <1	history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350 limit/base >20 >20	<1 0 0 0 <1 5 1522 2 977 <1 current <1 <1 <1 <1	history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350	<1 0 0 0 <1 5 1522 2 977 <1 current <1 <1 <1		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350 limit/base >20 >20	<1 0 0 0 <1 5 1522 2 977 <1 current <1 <1 <1 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm	ASTM D5185(m)	0 0 0 0 0 0 1700 0 1350 limit/base >20 >20 >0.05 >500	<1 0 0 0 1 5 1522 2 977 <1 current <1 <1 <1 1 61	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water INFRA-RED	ppm	ASTM D5185(m) ASTM D6304* ASTM D6304*	0 0 0 0 0 0 1700 0 1350 limit/base >20 >20 >0.05 >500	<1 0 0 0 1 5 1522 2 977 <1 current <1 -1 0.016 161 current	history1 history1	history2 history2



# **OIL ANALYSIS REPORT**



ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c)  method ASTM D7414* ASTM D974*	>640 >80 >20 >4 >3	767 181 25 10 4 4 17/15/12		
ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) method ASTM D7414*	>80 >20 >4 >3 >18/16/13	25 10 4 4 17/15/12		
ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) method	>20 >4 >3 >18/16/13	10 4 4 17/15/12		
ASTM D7647 ASTM D7647 ISO 4406 (c) method ASTM D7414*	>4 >3 >18/16/13	4 4 17/15/12		
ASTM D7647 ISO 4406 (c) method ASTM D7414*	>3 >18/16/13	4 17/15/12		
ISO 4406 (c)  method  ASTM D7414*	>18/16/13	17/15/12		
method  ASTM D7414*				
ASTM D7414*	limit/base			
		current	history1	history2
ASTM D974*		157.1		
		0.60		
method	limit/base	current	history1	history2
Visual*	NONE	NONE		
Visual*	NONE	NONE		
Visual*	NONE	NONE		
Visual*	NONE	NONE		
Visual*	NONE	NONE		
Visual*	NONE	NONE		
Visual*	NORML	NORML		
Visual*	NORML	NORML		
Visual*	>0.05	NEG		
Visual*		NEG		
method	limit/base	current	history1	history2
ASTM D7279(m)	47.0	46.8		
ASTM D7279(m)	8.1	8.6		
ASTM D2270*	146	163		
method	limit/base	current	history1	history2
			no image	no image
			no image	no image
	Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D7279(m) ASTM D7279(m) ASTM D2270*	Visual* NONE Visual* NONE Visual* NONE Visual* NORML Visual* NORML Visual* NORML Visual* >0.05 Visual*  method limit/base  ASTM D7279(m) 47.0  ASTM D7279(m) 8.1  ASTM D2270* 146	Visual* NONE NONE   NONE   Visual* NONE   NONE   NONE   Visual* NONE   NORML   NORML   NORML   Visual* NORML   NORML   NORML   Visual*   NORML   NORML   Visual*   NORML   NEG   N	Visual*   NONE   NONE   NONE



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC Lab Number : 02622164 Unique Number : 5747283

Diagnosed Test Package : MOB 2 ( Additional Tests: TAN Man ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Received

**Tested** 

: 14 Mar 2024

: 15 Mar 2024

: 15 Mar 2024 - Bill Quesnel

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.

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