

# **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

## [02576968] Machine Id VBS343 (S/N KXER01207)

#### Component Hydraulic System

### SINTO MULTIGRADE BIO (--- GAL)

#### DIAGNOSIS

#### Recommendation

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

#### Wear

Les taux d'usure de tous les composants sont normaux.

#### Contamination

Il n'y a pas d'huile minérale présente dans le fluide. La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La propreté du système et du fluide est acceptable.

#### Fluid Condition

L'état de l'huile est acceptable pour la durée de service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PP		
Sample Date		Client Info		17 Aug 2023		
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	3		
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)		0		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>20	<1		
Copper	ppm	ASTM D5185(m)		2		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		<1		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method				history2
Boron	ppm	ASTM D5185(m)	1	1		
Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m)		1 0		
		( )				
Barium	ppm	ASTM D5185(m)	0 0	0		
Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	0 0 0 <1		
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	0 0 0		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325	0 0 <1 7 1242		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6	0 0 <1 7 1242 13		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325	0 0 <1 7 1242 13 2339	  	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6	0 0 <1 7 1242 13	   	   
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6	0 0 <1 7 1242 13 2339	   	   
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6 2400 limit/base	0 0 <1 7 1242 13 2339 <1		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b>	0 0 0 8 1325 6 2400 <b>limit/base</b> >15	0 0 2 3 3 1242 13 2339 <1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m)	0 0 0 8 1325 6 2400 limit/base >15	0 0 (0 <1 7 1242 13 2339 <1 2339 <1 20 6	      history1	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6 2400 limit/base >15	0 0 (0 <1 7 1242 13 2339 <1 (urrent 6 2	      history1	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>Method</b> ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6 2400 <b>limit/base</b> >15 >20	0 0 2 3 3 4 1242 13 2339 <1 2339 <1 2 3 3 9 5 1 2 3 9 5 1 2 3 9 5 1 2 3 9 5 5 1 2 3 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	      history1  	      history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6 2400 <b>limit/base</b> >15 >20	0 0 2 3 3 1242 13 2339 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	     history1   history1	     history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6 2400 <b>limit/base</b> >15 >20	0 0 2 3 3 1242 13 2339 <1 2339 <1 6 2 2 <1 6 2 <1 6 2 <1 0	      history1   history1 	     history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 8 1325 6 2400 limit/base >15 >20 limit/base	0 0 0 <1 7 1242 13 2339 <1 current 6 2 2 <1 6 2 <1 0 4.9	      history1   history1  history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li></ul>



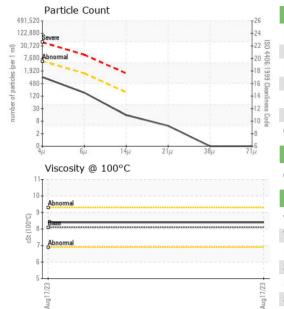
# **OIL ANALYSIS REPORT**

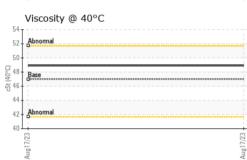
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**FLUID CLEANLINESS** 

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Particle Trend

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barticles (1 ml) 4k 3k

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Particles >4µm		ASTM D7647	>5000	867		
Particles >6µm		ASTM D7647	>1300	155		
Particles >14µm		ASTM D7647	>160	13		
Particles >21µm		ASTM D7647	>40	4		
Particles >38µm		ASTM D7647	>10	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/14/11		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		152.9		
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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	47.0	48.9		
Visc @ 100°C	cSt	ASTM D7279(m)	8.1	8.4		
Viscosity Index (VI)	Scale	ASTM D2270*	145	147		
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image

SINTO INC : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Laboratory CALA Sample No. : PP Received : 18 Aug 2023 3750, 14 AVE WEST Lab Number : 02576969 Diagnosed : 23 Aug 2023 SAINT-GEORGES DE BEAUCES, QC ISO 17025:2017 Accredited Laboratory Unique Number : 5630029 Diagnostician : Bill Quesnel CA G5Y 8E3 Test Package : MOB 2 (Additional Tests: FT-IR, KV100, Mineral Oil Content, VI) Contact: Jimmie Roy To discuss this sample report, contact Customer Service at 1-800-268-2131. j.roy@sinto.ca Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (418)227-6442 Validity of results and interpretation are based on the sample and information as supplied. F: (418)228-5592

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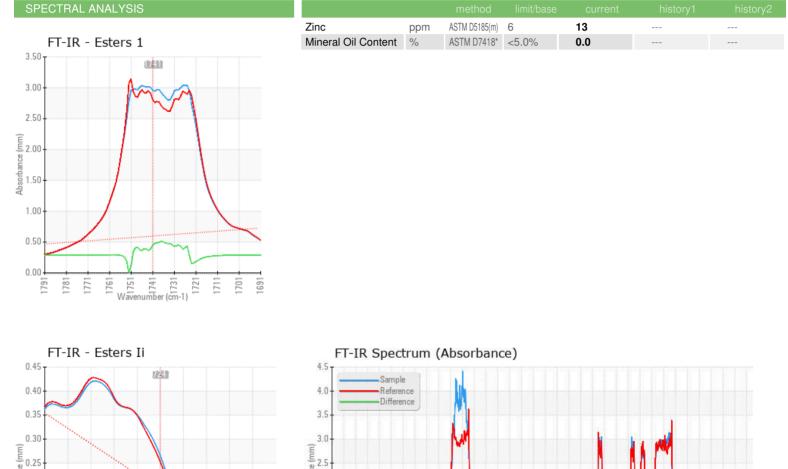


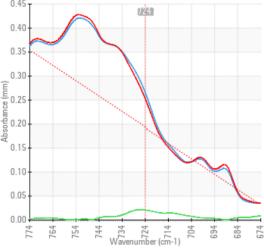
# **MINERAL OIL CONTENT REPORT**

#### Area [02576968] Machine Id VBS343 (S/N KXER01207) Component

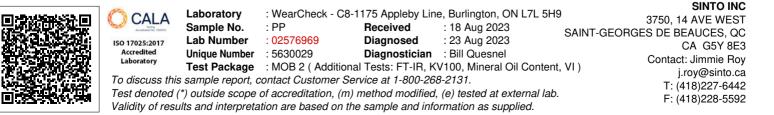
Hydraulic System

SINTO MULTIGRADE BIO (--- GAL)





2 2.0 1.5 1.0 0.5 0.0 4000 3300 33700 3500 3500 33700 33700 33700 33700 33700 33700 3200 22800 22800 22800 22800 22800 2400 2300 000 800 500 400 200 00 2100 300 000 000 000 900



PASS



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