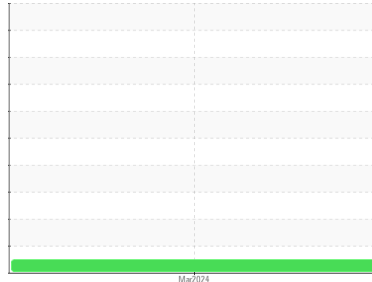




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Chem-Ecol
 Machine Id
A2403149
 Component
Hydraulic System
 Fluid
CHEM-ECOL BIO HYDRAULIC 32ZFD (--- GAL)

DIAGNOSIS

Recommendation

We certify that this oil is clean, that the additives are at acceptable levels, and that it is suitable for use.

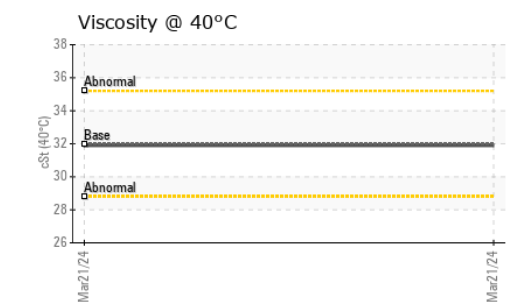
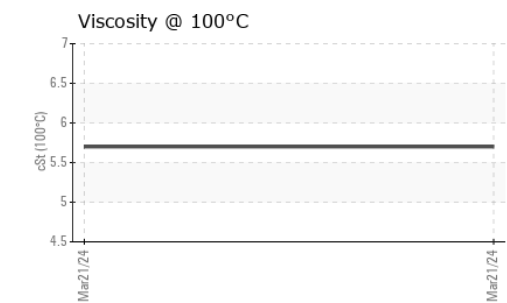
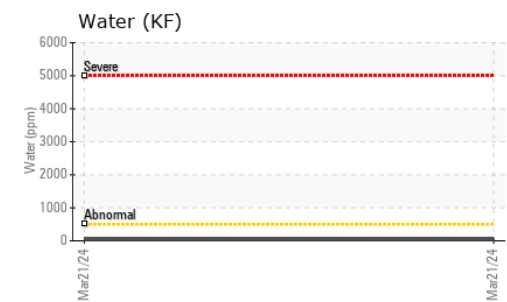
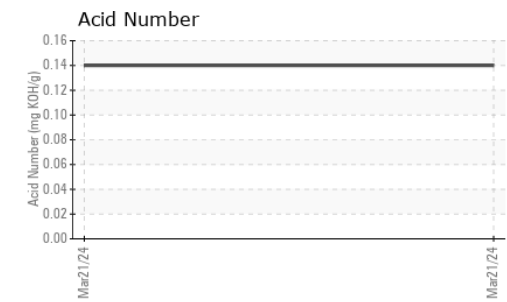
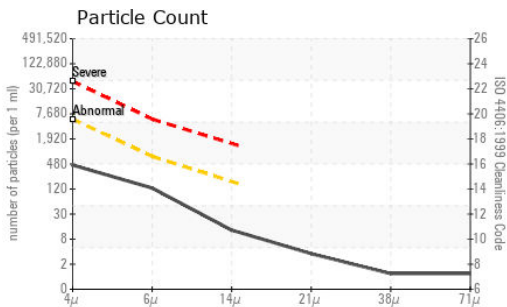
SAMPLE INFORMATION		method	limit/base	current	history1	history2
Batch #	Client Info			3041-A	---	---
Department	Client Info			Production	---	---
Sample From	Client Info			Machine	---	---
Production Stage	Client Info			Final	---	---
Sent to WC	Client Info			03/21/2024	---	---
Sample Number	Client Info			E30001736	---	---
Sample Date	Client Info			21 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)	>20	0	---	---
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	0	---	---
Lead	ppm	ASTM D5185(m)	>20	0	---	---
Copper	ppm	ASTM D5185(m)	>20	0	---	---
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)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		2	---	---
Calcium	ppm	ASTM D5185(m)		222	---	---
Phosphorus	ppm	ASTM D5185(m)		158	---	---
Zinc	ppm	ASTM D5185(m)		4	---	---
Sulfur	ppm	ASTM D5185(m)		893	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	0	---	---
Sodium	ppm	ASTM D5185(m)		0	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Water	%	ASTM D6304*	>0.05	0.004	---	---
ppm Water	ppm	ASTM D6304*	>500	44	---	---

OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	397	---	---
Particles >6µm	ASTM D7647	>640	112	---	---
Particles >14µm	ASTM D7647	>160	11	---	---
Particles >21µm	ASTM D7647	>40	3	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>19/16/14	16/14/11	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.14	---	---

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 PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32	31.9	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		5.7	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		119	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : E30001736 **Received** : 25 Mar 2024
Lab Number : **02624262** **Tested** : 26 Mar 2024
Unique Number : 5749381 **Diagnosed** : 27 Mar 2024 - Tatiana Sorkina
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

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 640 Victoria Street
 Cobourg, ON
 CA K9A 5H5
 Contact: Tatiana Sorkina
 tsorkina@e360s.ca
 T: (800)263-3939
 F: (905)373-4950

To discuss this sample report, contact Customer Service at 1-905-372-2251.
 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.