



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area  
**[02586139]**  
 Machine Id  
**GROVE GRT8120 237293**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL NATURELLE S2 32 (--- GAL)**

## RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP394728	VCP352463	---
Sample Date		Client Info		28 Jul 2023	09 Dec 2022	---
Machine Age	hrs	Client Info		700	498	---
Oil Age	hrs	Client Info		40	498	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Not Chngd	Not Chngd	---
Sample Status				ABNORMAL	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<1	2	---
Chromium	ppm	ASTM D5185(m)	>10	0	0	---
Nickel	ppm	ASTM D5185(m)	>10	0	0	---
Titanium	ppm	ASTM D5185(m)		1	<1	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>10	1	<1	---
Lead	ppm	ASTM D5185(m)	>10	0	<1	---
Copper	ppm	ASTM D5185(m)	>75	<1	1	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

## CONTAMINATION

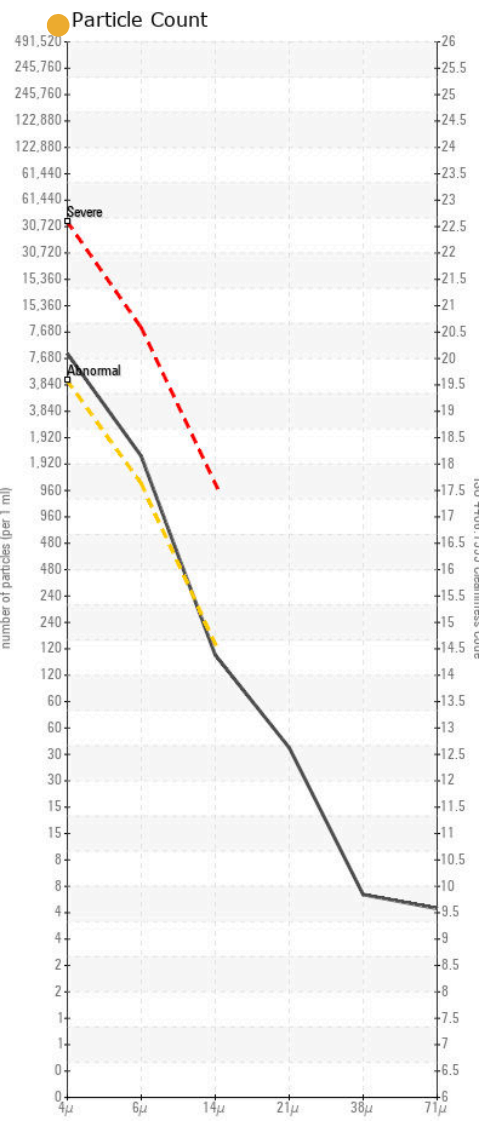
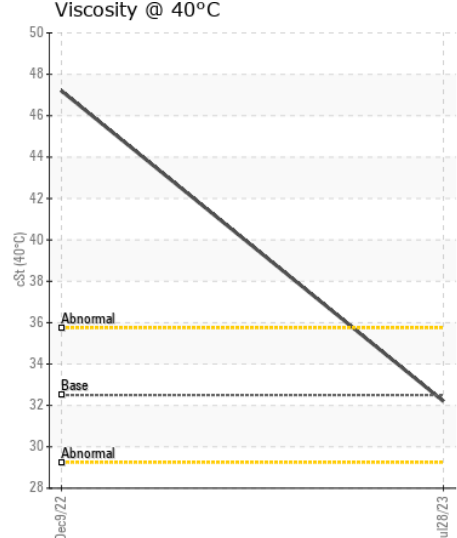
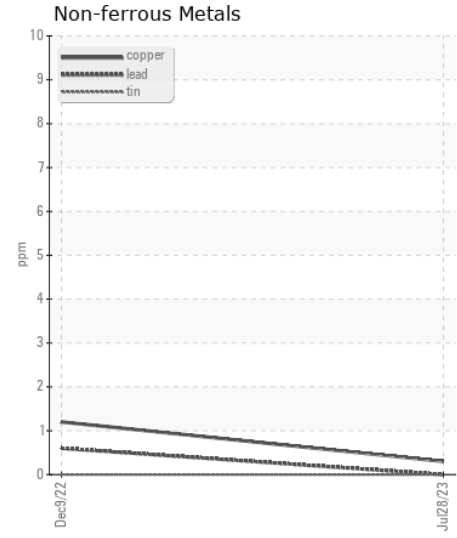
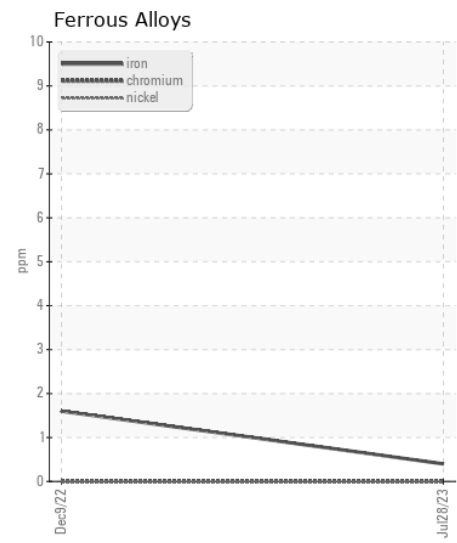
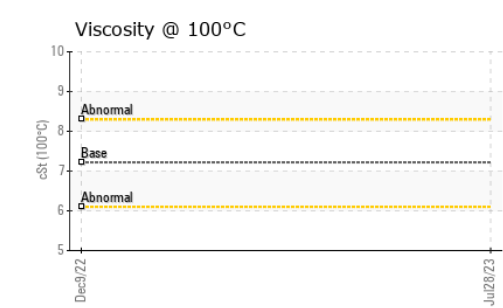
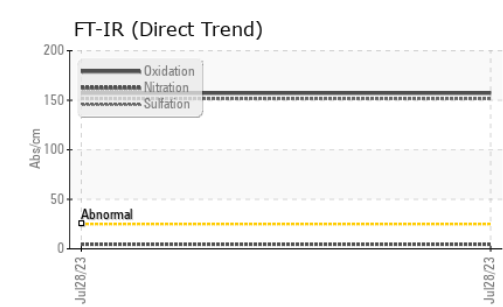
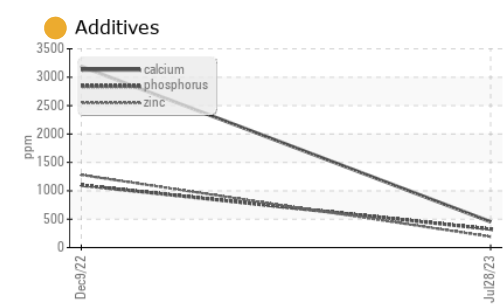
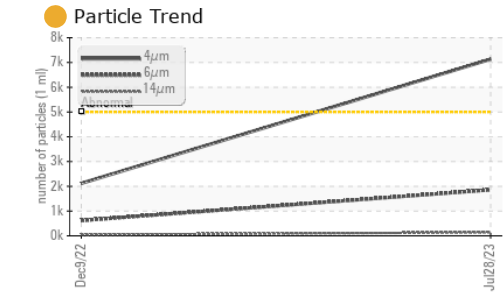
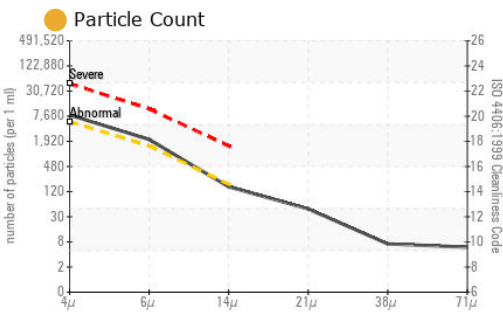
There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration (6.8%) of mineral oil present in the fluid.

Silicon	ppm	ASTM D5185(m)	>20	2	14	---
Potassium	ppm	ASTM D5185(m)	>20	<1	1	---
Water		WC Method	>0.1	NEG	NEG	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*		4.6	---	---
Sulfation	Abs/.1mm	ASTM D7415*		151.4	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	▲ 6.8	---	---
Particles >4µm		ASTM D7647	>5000	● 7135	2119	---
Particles >6µm		ASTM D7647	>1300	● 1860	617	---
Particles >14µm		ASTM D7647	>160	● 138	44	---
Particles >21µm		ASTM D7647	>40	● 41	11	---
Particles >38µm		ASTM D7647	>10	● 6	2	---
Particles >71µm		ASTM D7647	>3	● 5	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	● 20/18/14	18/16/13	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	---

## FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.

Sodium	ppm	ASTM D5185(m)		<1	2	---
Boron	ppm	ASTM D5185(m)	2	13	91	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	<1	2	---
Manganese	ppm	ASTM D5185(m)	0	0	<1	---
Magnesium	ppm	ASTM D5185(m)	0	3	21	---
Calcium	ppm	ASTM D5185(m)	0	● 454	3191	---
Phosphorus	ppm	ASTM D5185(m)	180	● 324	1097	---
Zinc	ppm	ASTM D5185(m)	0	● 191	1279	---
Sulfur	ppm	ASTM D5185(m)	1650	● 2367	6589	---
Oxidation	Abs/.1mm	ASTM D7414*		157.1	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	32.5	32.2	47.2	---
Visc @ 100°C	cSt	ASTM D7279(m)	7.22	6.9	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	196	182	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP394728  
**Lab Number** : 02575733  
**Unique Number** : 5620784  
**Test Package** : MOB 1 ( Additional Tests: FT-IR, KV100, Mineral Oil Content, PrtCount)

**STRONGCO EQUIPMENT INC.**  
 72 CHEMIN DU TREMBLAY  
 BOUCHERVILLE, QC  
 CA J4B 6Z6  
 Contact: Jonathan Lamontagne  
 jlamontagne@strongco.com  
 T: (450)449-4666  
 F: (450)449-7913

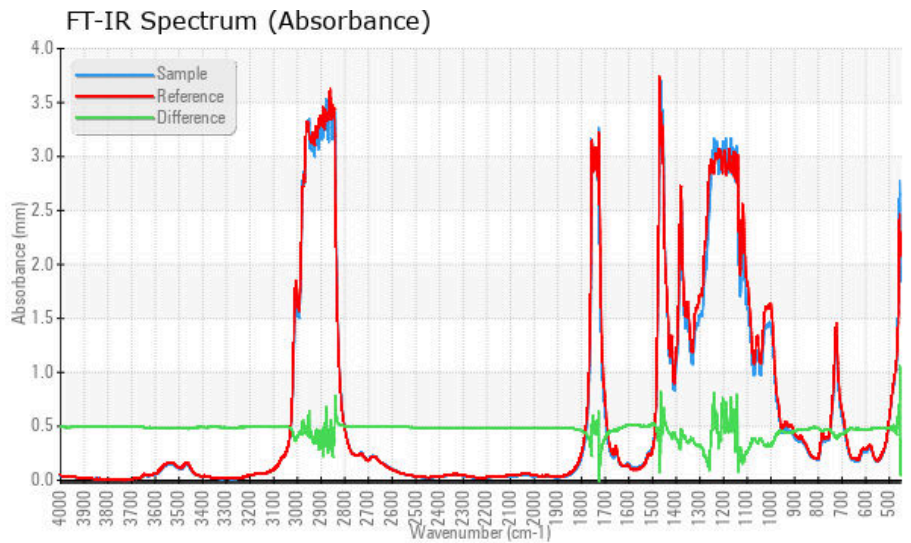
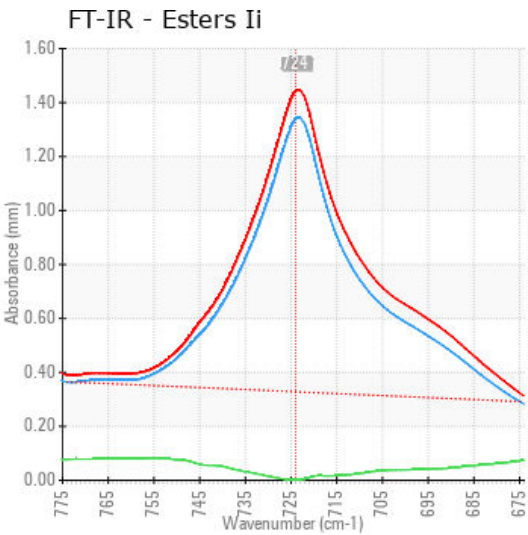
To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.



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**SPECTRAL ANALYSIS**

		method	limit/base	current	history1	history2
Mineral Oil Content	%	ASTM D7418*	<5.0%	▲ <b>6.8</b>	---	---
Zinc	ppm	ASTM D5185(m)	0	● <b>191</b>	1279	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP394728 **Received** : 14 Aug 2023  
**Lab Number** : **02575733** **Tested** : 02 Oct 2023  
**Unique Number** : 5620784 **Diagnosed** : 02 Oct 2023 - Bill Quesnel  
**Test Package** : MOB 1 ( Additional Tests: FT-IR, KV100, Mineral Oil Content, PrtCount, Vj)

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