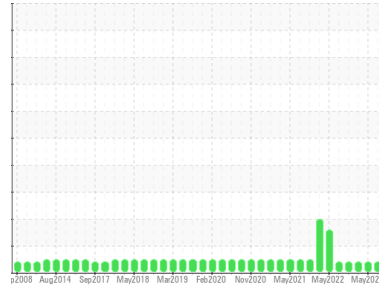




# OIL ANALYSIS REPORT

## Sample Rating Trend



## ADDITIVES



Machine Id

# NANJING GIANT SHJ-63 (S/N CL1)

Component

**Gearbox**

Fluid

**ESSO SPARTAN EP 320 (61 LTR)**

### DIAGNOSIS

#### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0766387</b>	WC0766389	WC
Sample Date	Client Info		<b>05 May 2023</b>	01 May 2023	23 Jan 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ATTENTION</b>	ATTENTION	ATTENTION

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m) >200	<b>4</b>	4	3
Chromium	ppm	ASTM D5185(m) >15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >15	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >25	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185(m) >100	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m) >200	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) .4	<b>13</b>	13	13
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	1	1
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 0	<b>2</b>	2	2
Calcium	ppm	ASTM D5185(m) 0	<b>8</b>	9	9
Phosphorus	ppm	ASTM D5185(m) 250	<b>136</b>	136	140
Zinc	ppm	ASTM D5185(m) 0	<b>4</b>	5	5
Sulfur	ppm	ASTM D5185(m)	<b>13623</b>	13423	13647
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	<b>1</b>	3	1
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1

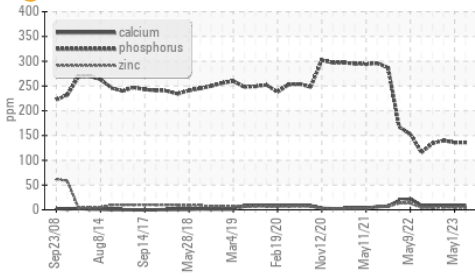
### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.75	<b>0.39</b>	0.32	0.35

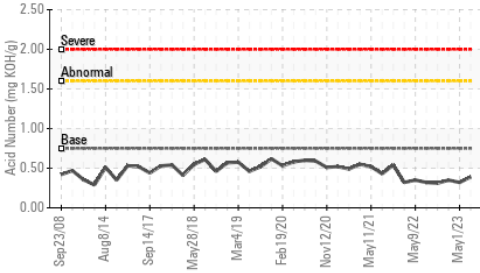


# OIL ANALYSIS REPORT

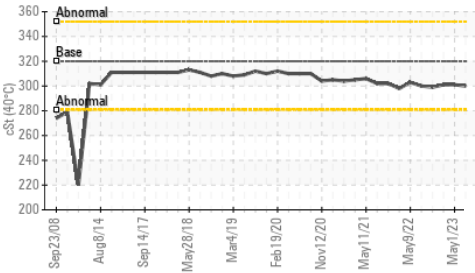
## Additives



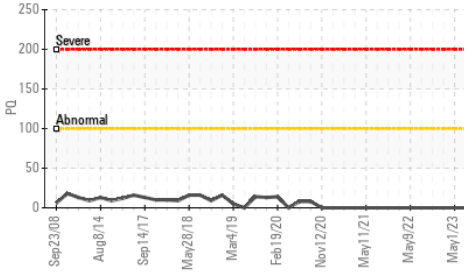
## Acid Number



## Viscosity @ 40°C



## PQ



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
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*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	300	301

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

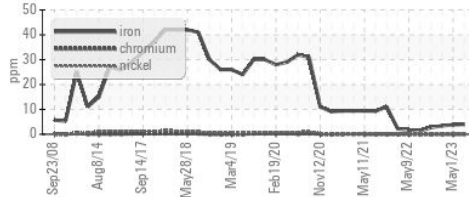


Bottom

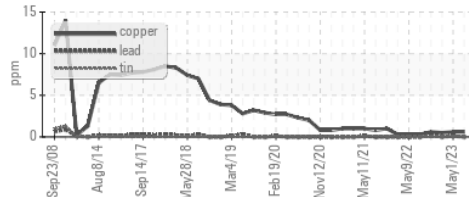


## GRAPHS

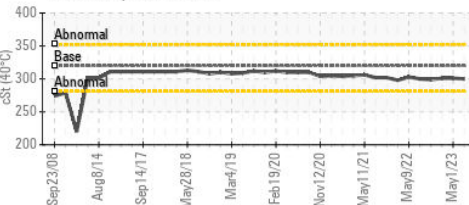
### Ferrous Alloys



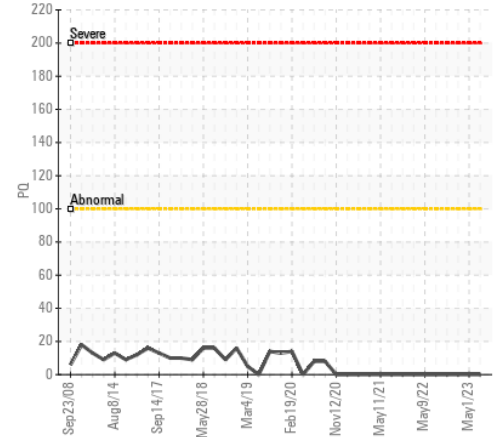
### Non-ferrous Metals



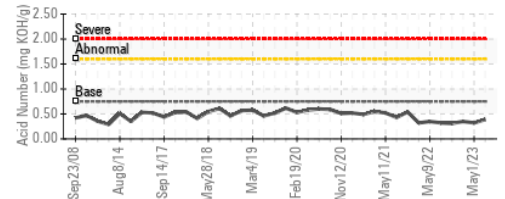
### Viscosity @ 40°C



### PQ



### Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : WC0766387

Lab Number : 02557667

Unique Number : 5578707

Test Package : IND 2 ( Additional Tests: TAN Man )

Received : 15 May 2023

Tested : 15 May 2023

Diagnosed : 16 May 2023 - Kevin Marson

INGENIA POLYMERS

565 GREENWICH ST, P.O. BOX 214 STN MAIN

BRANTFORD, ON

CA N3T 5M8

Contact: Anwar Hussain

anwarh@ingeniapolymers.com

T:

F: (519)758-8036

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.