



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FA8-8G2-HPU**  
Component  
**Hydraulic System**  
Fluid  
**ESSO NUTO H ISO 46 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0785256</b>	WC0619002	WC0619010
Sample Date		Client Info		<b>10 Jun 2024</b>	11 Jan 2023	16 Aug 2021
Machine Age	days	Client Info		<b>1321</b>	804	291
Oil Age	days	Client Info		<b>0</b>	0	0
Filter Age	days	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>5</b>	3	2
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>1</b>	1	1
Copper	ppm	ASTM D5185(m)	>20	<b>7</b>	6	4
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

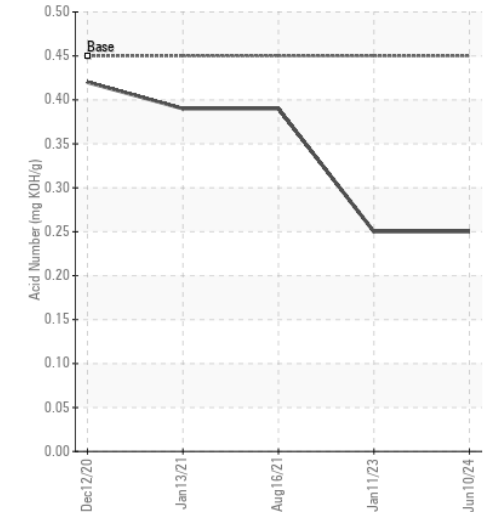
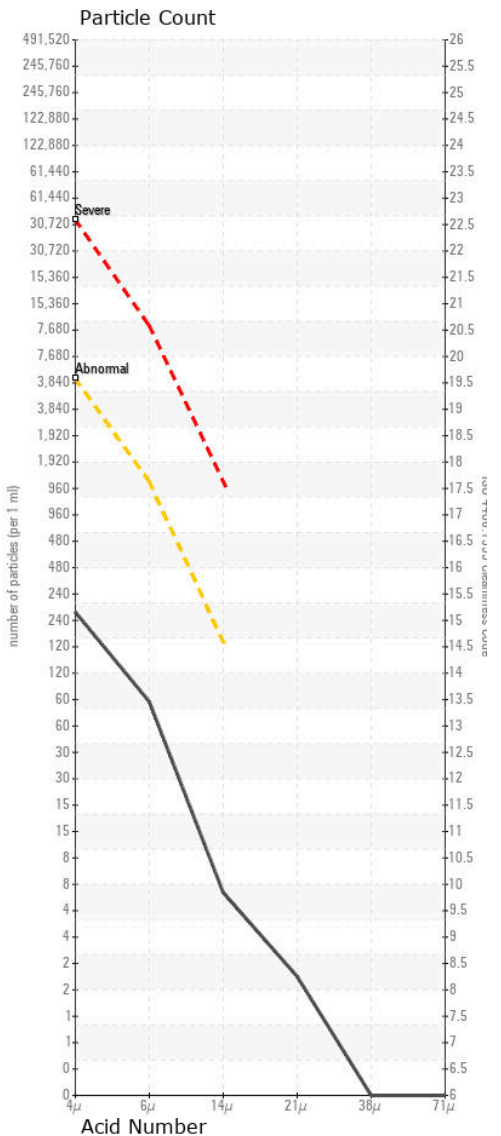
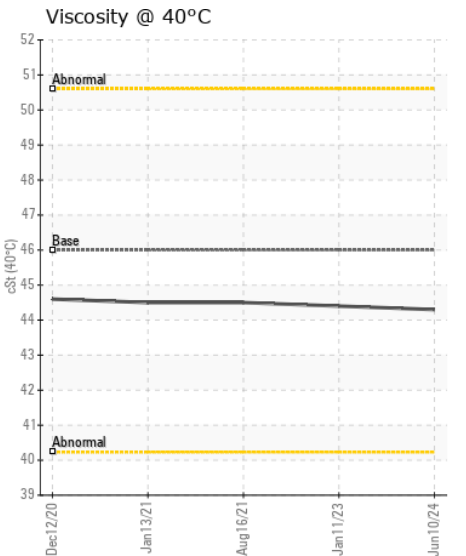
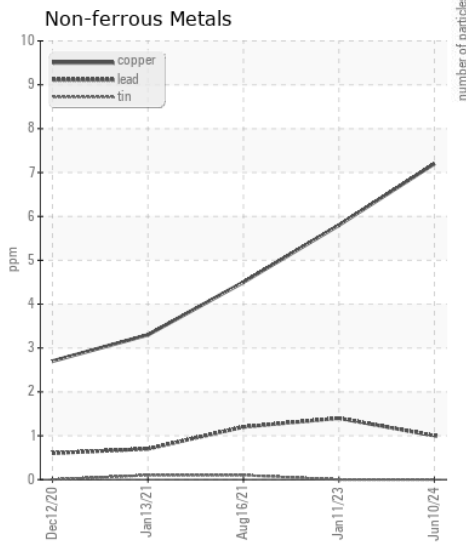
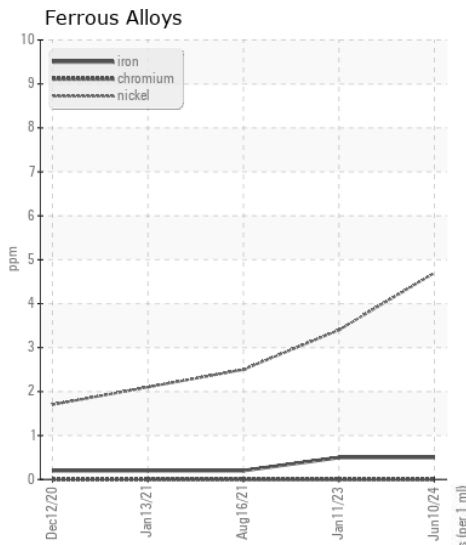
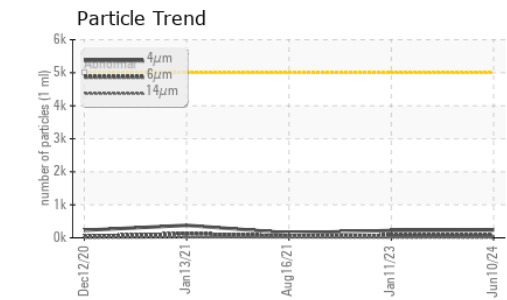
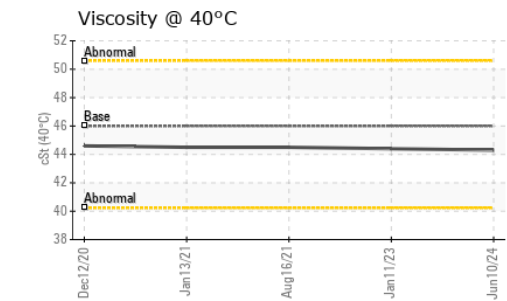
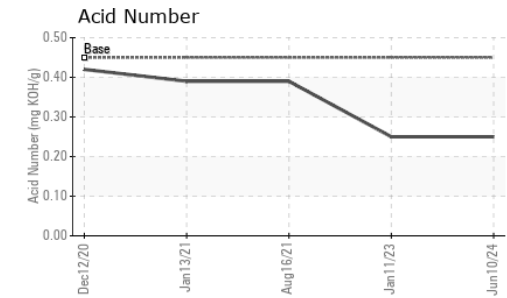
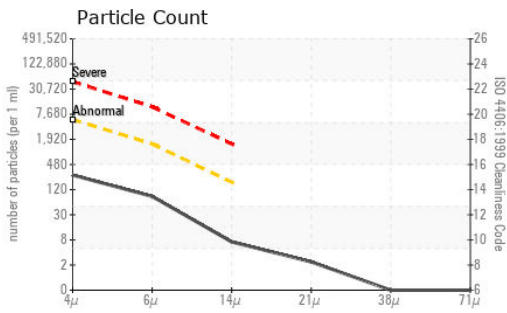
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	0	0
Water		WC Method	>0.05	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>236</b>	222	148
Particles >6µm		ASTM D7647	>1300	<b>73</b>	73	53
Particles >14µm		ASTM D7647	>160	<b>6</b>	7	13
Particles >21µm		ASTM D7647	>40	<b>2</b>	3	5
Particles >38µm		ASTM D7647	>10	<b>0</b>	1	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>15/13/10</b>	15/13/10	14/13/11
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	5	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185(m)	50	<b>33</b>	31	33
Phosphorus	ppm	ASTM D5185(m)	330	<b>240</b>	255	259
Zinc	ppm	ASTM D5185(m)	410	<b>305</b>	299	317
Sulfur	ppm	ASTM D5185(m)	2700	<b>3097</b>	3120	3166
Acid Number (AN)	mg KOH/g	ASTM D974*	0.45	<b>0.25</b>	0.25	0.39
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>44.3</b>	44.4	44.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0785256  
**Lab Number** : 02642325  
**Unique Number** : 5799864  
**Test Package** : IND 2  
**Received** : 17 Jun 2024  
**Tested** : 18 Jun 2024  
**Diagnosed** : 18 Jun 2024 - Wes Davis

**Ontario Power Generation - Northeast Operations**  
 801 MOUNTJOY ST S, BOX 966  
 TIMMINS, ON  
 CA P4N 7H1  
 Contact: Joey De Pinto  
 joey.depinto@opg.com  
 T: (705)363-0268  
 F:

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.