IND II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
MTR [166411]
Machine Id
TINHGEN5BRGGUITHR
Component
Thrust Bearing
Fluid
MOBIL DTE 746 (1588 LTR)

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

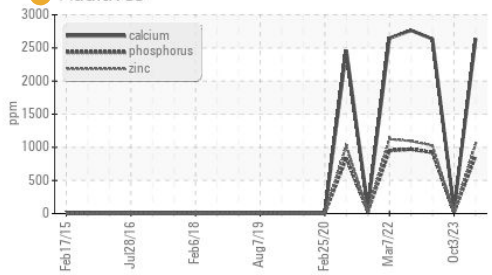
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

FLUID CONDITION

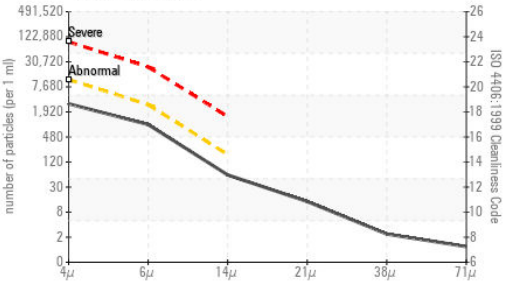
Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0862813	WC0678259	WC0678267
Sample Date		Client Info		06 May 2024	03 Oct 2023	28 Feb 2023
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		42	3	2
Filter Age	yrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	ATTENTION
Iron	ppm	ASTM D5185(m)	>85	2	<1	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>40	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>60	8	2	5
Copper	ppm	ASTM D5185(m)	>7	<1	6	<1
Tin	ppm	ASTM D5185(m)	>40	2	11	3
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>20	2	<1	2
Potassium	ppm	ASTM D5185(m)	>20	1	0	<1
Water		WC Method	>2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>10000	2633	7849	869
Particles >6µm		ASTM D7647	>2500	837	847	239
Particles >14µm		ASTM D7647	>160	52	40	13
Particles >21µm		ASTM D7647	>40	12	8	3
Particles >38µm		ASTM D7647	>10	2	1	0
Particles >71µm		ASTM D7647	>3	1	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	19/17/13	20/17/12	17/15/11
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		1	0	1
Boron	ppm	ASTM D5185(m)		3	<1	3
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		2	0	3
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		25	<1	24
Calcium	ppm	ASTM D5185(m)		2637	57	2634
Phosphorus	ppm	ASTM D5185(m)		875	21	923
Zinc	ppm	ASTM D5185(m)		1050	22	1028
Sulfur	ppm	ASTM D5185(m)		5592	153	5685
Acid Number (AN)	mg KOH/g	ASTM D974*	0.10	2.18	0.13	2.17
Visc @ 40°C	cSt	ASTM D7279(m)	44.0	41.3	43.1	40.8

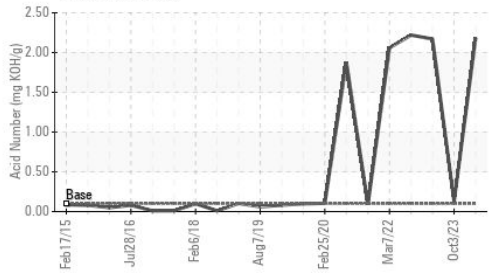
Additives



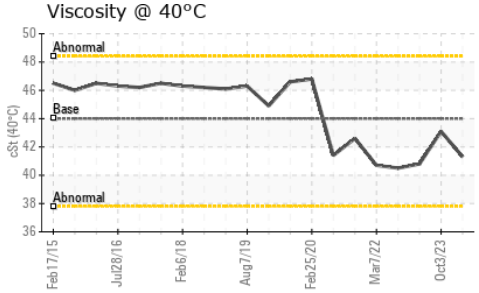
Particle Count



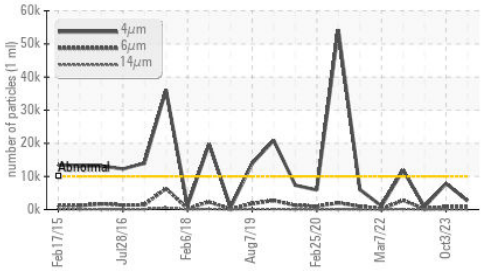
Acid Number



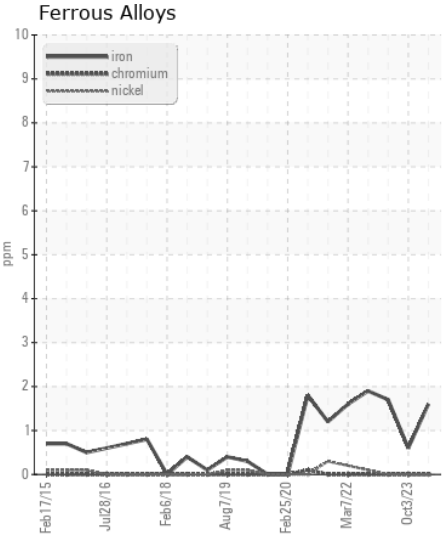
Viscosity @ 40°C



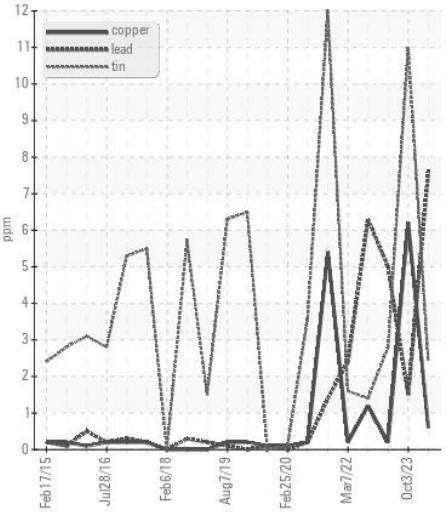
Particle Trend



Ferrous Alloys



Non-ferrous Metals



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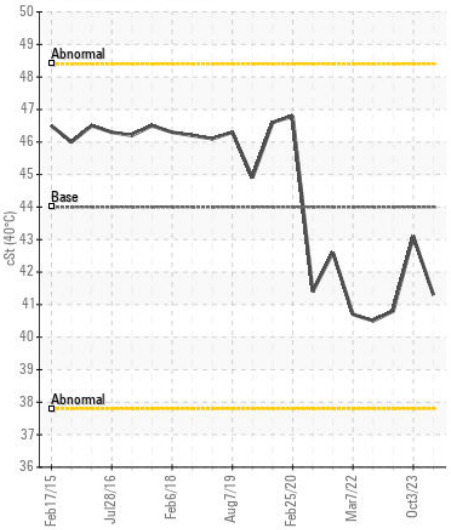
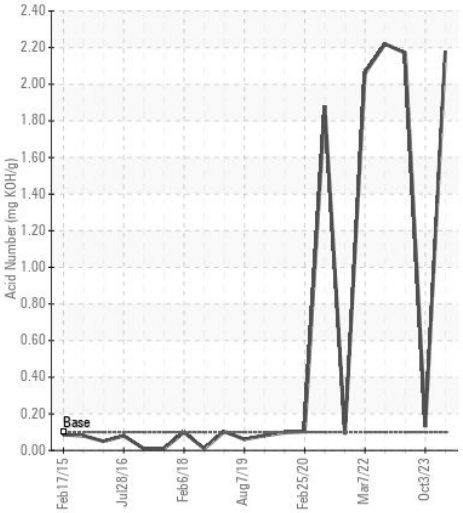


Particle Filter (Magn: 200 x)

Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9	**ALGONQUIN POWER SYSTEMS INC.**	
Sample No.	: WC0862813	**Received**	: 09 May 2024	354 DAVIS ROAD
Lab Number	: 02634354	**Tested**	: 10 May 2024	OAKVILLE, ON
Unique Number	: 5775507	**Diagnosed**	: 10 May 2024 - Kevin Marson	CA L6J 2X1
Test Package	: IND 2 (Additional Tests: BottomAnalysis, FilterPatch, PrtFilter, TAN Mar)	Contact: Antonino Champ Fernando

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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