

### **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

Machine Id

# PRESS #1 MAIN TANK

Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (9000 LTR)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.

#### 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.

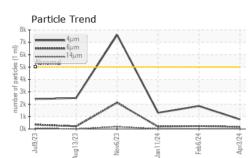
#### Fluid Condition

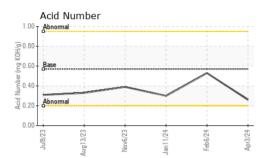
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service (unconfirmed).

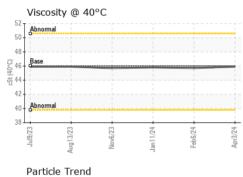
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0921559	WC0899882	WC
Sample Date		Client Info		03 Apr 2024	06 Feb 2024	11 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	2	2	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	<1	<1
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	17	16	16
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
		method				history2
ADDITIVES		method	iiiiii/base	Current	TIIStOLA	motory
Boron	ppm	ASTM D5185(m)	5	<1	0	<1
Boron Barium	ppm ppm		5			
Boron		ASTM D5185(m)	5	<1 0 0	0 0 0	<1 0 0
Boron Barium Molybdenum Manganese	ppm	ASTM D5185(m) ASTM D5185(m)	5 5	<1 0	0 0 0 0	<1 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25	<1 0 0 0 1	0 0 0 0 1	<1 0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200	<1 0 0 1 61	0 0 0 0 1 62	<1 0 0 0 <1 63
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300	<1 0 0 1 61 330	0 0 0 1 62 337	<1 0 0 <1 63 335
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370	<1 0 0 1 61 330 421	0 0 0 1 62 337 414	<1 0 0 <1 63 335 425
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300	<1 0 0 1 61 330 421 732	0 0 0 1 62 337 414 781	<1 0 0 <1 63 335 425 774
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370	<1 0 0 1 61 330 421	0 0 0 1 62 337 414	<1 0 0 <1 63 335 425
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370 2500 <b>limit/base</b>	<1 0 0 1 61 330 421 732 <1 current	0 0 0 1 62 337 414 781 <1 <1 history1	<1 0 0 <1 63 335 425 774 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370 2500	<1 0 0 1 61 330 421 732 <1 current 0	0 0 0 1 62 337 414 781 <1 <b>history1</b> 0	<1 0 0 <1 63 335 425 774 <1 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15	<1 0 0 1 61 330 421 732 <1 Current 0 <1	0 0 0 1 62 337 414 781 <1 ×1 history1 0 <1	<1 0 0 <1 63 335 425 774 <1 history2 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15	<1 0 0 1 61 330 421 732 <1 current 0	0 0 0 1 62 337 414 781 <1 <b>history1</b> 0	<1 0 0 <1 63 335 425 774 <1 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 <b>limit/base</b> >15 >20 <b>limit/base</b>	<1 0 0 1 1 61 330 421 732 <1 <i>current</i> 0 <1 <1 <1	0 0 0 1 62 337 414 781 <1 *1 <b>history1</b> 0 <1 <1 <1 history1	<1 0 0 (0 <1 63 335 425 774 <1 <b>history2</b> 0 <1 10 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 300 370 2500 imit/base >15 \$ 20 imit/base \$ 15 \$ 20 \$ 10	<1 0 0 1 61 330 421 732 <1 Current 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	0 0 0 1 62 337 414 781 <1 <1 <b>history1</b> 0 <1 <1 <1 <b>history1</b> 1849	<1 0 0 () () () () () () () () () () () () ()
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 300 370 2500 imit/base >15 >20 imit/base >5000 >1300	<1 0 0 1 61 330 421 732 <1 <u>current</u> 0 <1 <1 <1 <u>current</u> 768 167	0 0 0 1 62 337 414 781 <1 <b>history1</b> 0 <1 <1 <1 <b>history1</b> 1849 234	<1 0 0 0 <1 63 335 425 774 <1 history2 0 <1 10 history2 1310 190
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Potassium Particles >4µm Particles >14µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D76477 ASTM D7647	5 5 5 225 200 300 370 2500 2500 imit/base >20 imit/base >5000 >1300 >1300 >160	<1 0 0 1 61 330 421 732 <1 <i>current</i> 0 <1 <1 <1 <1 <i>current</i> 768 167 19	0 0 0 1 62 337 414 781 <1 <1 <b>history1</b> 0 <1 <1 <1 <b>history1</b> 1849	<1 0 0 0 <1 63 335 425 774 <1 history2 0 <1 10 history2 1310 190 14
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Potassium Particles >4µm Particles >14µm Particles >21µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D76477 ASTM D76477 ASTM D7647	5 5 5 225 200 300 370 2500 2500 imit/base >15 >20 imit/base >5000 >1300 >1300 >160 >40	<1 0 0 1 61 330 421 732 <1 Current 0 <1 <1 <1 768 167 19 7	0 0 0 1 62 337 414 781 <1 * history1 0 <1 <1 <1 * history1 1849 234 16 4	<1 0 0 0 <1 63 335 425 774 <1 history2 0 <1 10 history2 1310 190 14 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m)         ASTM D7647         ASTM D7647         ASTM D7647         ASTM D7647	5 5 5 25 200 300 370 2500 2500 <b>limit/base</b> >15 >20 <b>limit/base</b> >5000 >1300 >160 >40 >10	<1 0 0 1 61 330 421 732 <1 Current 0 <1 <1 <1 768 167 19 7 2	0 0 0 1 62 337 414 781 <1 <b>history1</b> 0 <1 <1 <1 <b>history1</b> 1849 234 16 4 1	<1 0 0 0 <1 63 335 425 774 <1 history2 0 <1 10 history2 1310 190 14 4 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >5µm Particles >38µm Particles >71µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 <b>limit/base</b> >15 >20 <b>limit/base</b> >20 <b>limit/base</b> >15 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	<1 0 0 1 1 61 330 421 732 <1  Current 0 <1 <1 <1 <768 167 19 7 2 0 0 <1 <10 <10 <10 <10 <10 <10 <10 <10	0 0 0 1 62 337 414 781 <1 <b>history1</b> 0 <1 <1 <1 <b>history1</b> 1849 234 16 4 1 10 0	<1 0 0 0 <1 63 335 425 774 <1 history2 0 <1 10 history2 1310 190 14 4 0 0 0 14 4 0 0 0 0 14 14 14 14 0 0 0 0 14 15 190 14 14 14 14 14 14 14 14 15 15 15 15 15 15 15 15 15 15
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m)         ASTM D7647         ASTM D7647         ASTM D7647         ASTM D7647	5 5 5 25 200 300 370 2500 2500 <b>limit/base</b> >15 >20 <b>limit/base</b> >5000 >1300 >160 >40 >10	<1 0 0 1 1 61 330 421 732 <1 Current 0 <1 <1 <1  768 167 19 7 2 0 17/15/11	0 0 0 1 62 337 414 781 <1 <b>history1</b> 0 <1 <1 <1 <b>history1</b> 1849 234 16 4 1 1 0 18/15/11	<1 0 0 0 <1 63 335 425 774 <1 history2 0 <1 10 history2 1310 190 14 4 0 0

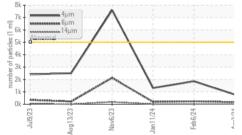


## **OIL ANALYSIS REPORT**



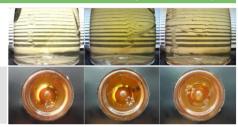




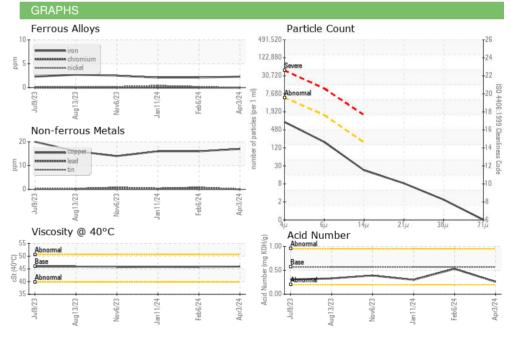


FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.26	0.53	0.30
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
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*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	45.9	45.7	45.8
SAMPLE IMAGES		method	limit/base	current	history1	history2
						0

Color



Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA : WC0921559 Sample No. Received : 05 Apr 2024 Lab Number : 02626973 Tested : 08 Apr 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5760105 Diagnosed : 08 Apr 2024 - Wes Davis Test Package : IND 2 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. 5675 Kennedy Road Mississauga, ON CA L4Z 2H9 Contact: Harsh Murria

**Hydro Extrusion North** 

CA L4Z 2H9 Contact: Harsh Murria Harsh.murria@hydro.com T: (819)462-0479 F: (866)462-6478

Report Id: INDMIS [WCAMIS] 02626973 (Generated: 04/08/2024 08:49:17) Rev: 1

Contact/Location: Harsh Murria - INDMIS Page 2 of 2