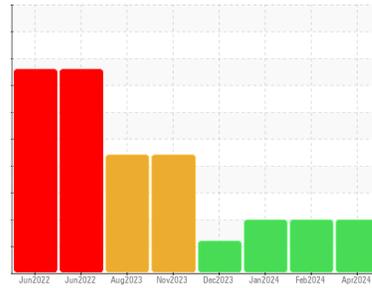




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

MAIN PRESS 4

Component

Hydraulic System

Fluid

PETRO CANADA HYDREX AW 46 (13000 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. 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

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service (unconfirmed). The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0921560	WC0899901	WC
Sample Date	Client Info		03 Apr 2024	06 Feb 2024	11 Jan 2024
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	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	10	11	11
Chromium	ppm	ASTM D5185(m)	>20	1	1	1
Nickel	ppm	ASTM D5185(m)	>20	0	0	<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	4	5	5
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

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0.0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0.0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0.1	0	0	0
Manganese	ppm	ASTM D5185(m)	0.0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0.3	2	2	2
Calcium	ppm	ASTM D5185(m)	50	53	53	54
Phosphorus	ppm	ASTM D5185(m)	315	335	339	342
Zinc	ppm	ASTM D5185(m)	411	391	389	394
Sulfur	ppm	ASTM D5185(m)	712	730	797	773
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	0	0	<1
Sodium	ppm	ASTM D5185(m)		1	1	1
Potassium	ppm	ASTM D5185(m)	>20	1	2	12

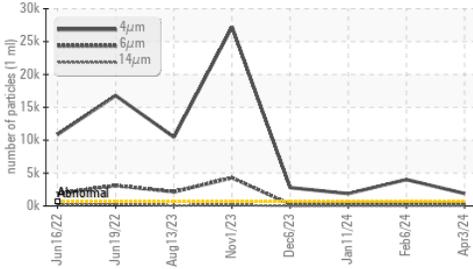
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>640	▲ 1891	▲ 4010	▲ 1882
Particles >6µm	ASTM D7647	>160	▲ 355	▲ 499	▲ 439
Particles >14µm	ASTM D7647	>20	● 36	● 27	▲ 49
Particles >21µm	ASTM D7647	>4	● 10	● 9	▲ 16
Particles >38µm	ASTM D7647	>3	1	1	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>16/14/11	▲ 18/16/12	▲ 19/16/12	▲ 18/16/13

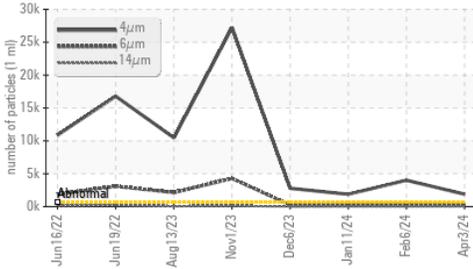


OIL ANALYSIS REPORT

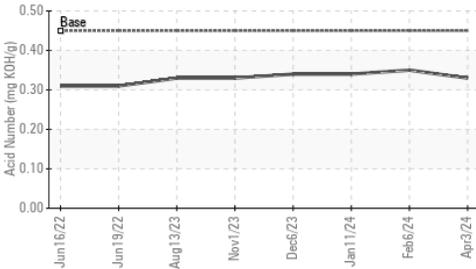
Particle Trend



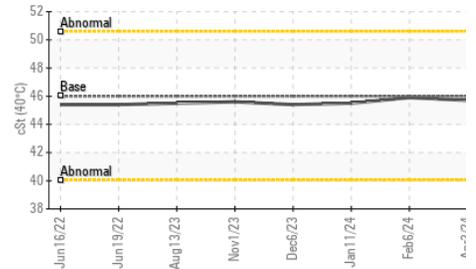
Particle Trend



Acid Number



Viscosity @ 40°C



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D974*	0.45	0.33	0.35	0.34
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*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES

method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	46.0	45.7	45.9	45.5

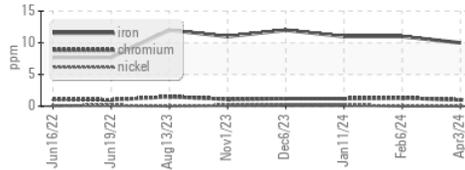
SAMPLE IMAGES

Color

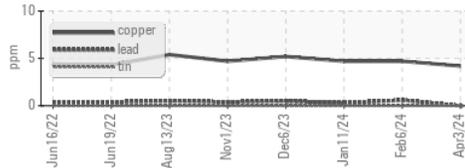
Bottom

GRAPHS

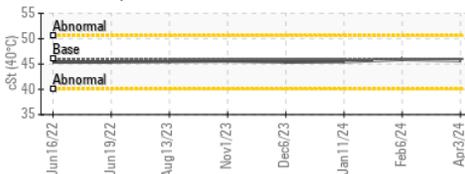
Ferrous Alloys



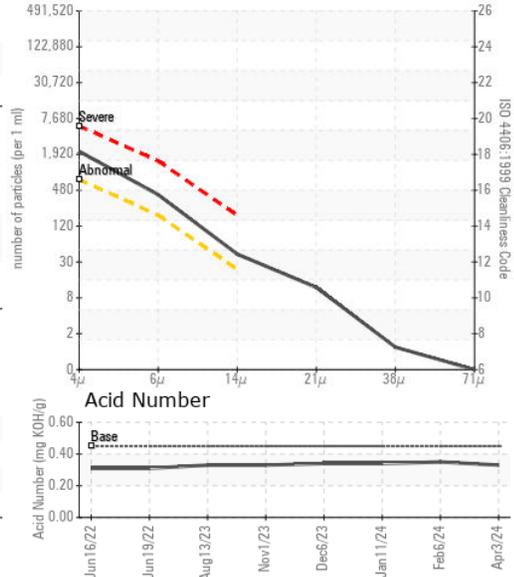
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0921560 **Received** : 05 Apr 2024
Lab Number : **02626974** **Tested** : 08 Apr 2024
Unique Number : 5760106 **Diagnosed** : 08 Apr 2024 - Wes Davis
Test Package : IND 2

Hydro Extrusion North
 5675 Kennedy Road
 Mississauga, ON
 CA L4Z 2H9
 Contact: Harsh Murria
 Harsh.murria@hydro.com
 T: (819)462-0479
 F: (866)462-6478

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.