



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
TEL82484 (S/N Aft Winch Servo Unit)

Component
Aft Hydraulic System

Fluid
PETRO CANADA HYDREX AW 32 (75 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0836405	WC0836400	WC0784052
Sample Date		Client Info		19 Mar 2024	24 Nov 2023	28 Oct 2023
Machine Age	hrs	Client Info		0	1409	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		None	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>10	0	0	0
Lead	ppm	ASTM D5185(m)	>20	0	0	<1
Copper	ppm	ASTM D5185(m)	>20	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

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

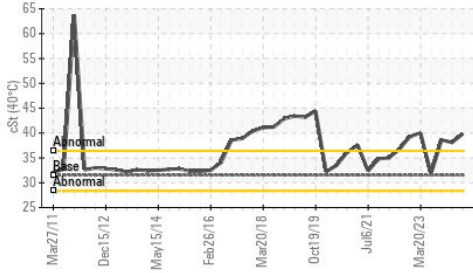
Silicon	ppm	ASTM D5185(m)	>15	0	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	831	1062	1445
Particles >6µm		ASTM D7647	>1300	84	92	167
Particles >14µm		ASTM D7647	>160	8	5	12
Particles >21µm		ASTM D7647	>40	3	2	5
Particles >38µm		ASTM D7647	>10	0	1	1
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/14/10	17/14/10	18/15/11
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	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

FLUID CONDITION

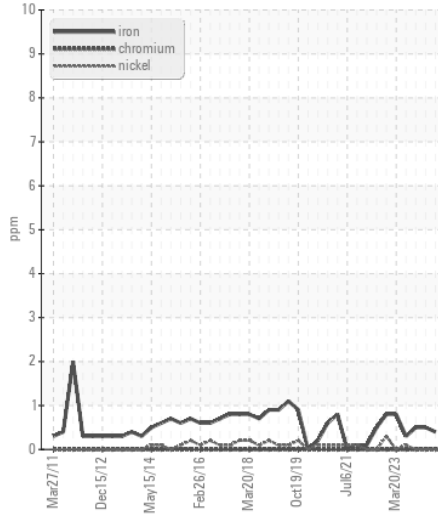
Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		0	<1	<1
Boron	ppm	ASTM D5185(m)	0	0	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	2	2	2
Calcium	ppm	ASTM D5185(m)	50	110	114	125
Phosphorus	ppm	ASTM D5185(m)	330	254	253	274
Zinc	ppm	ASTM D5185(m)	430	341	337	365
Sulfur	ppm	ASTM D5185(m)	760	600	602	648
Acid Number (AN)	mg KOH/g	ASTM D974*	0.50	0.35	0.36	0.36
Visc @ 40°C	cSt	ASTM D7279(m)	31.5	39.8	38.1	38.6

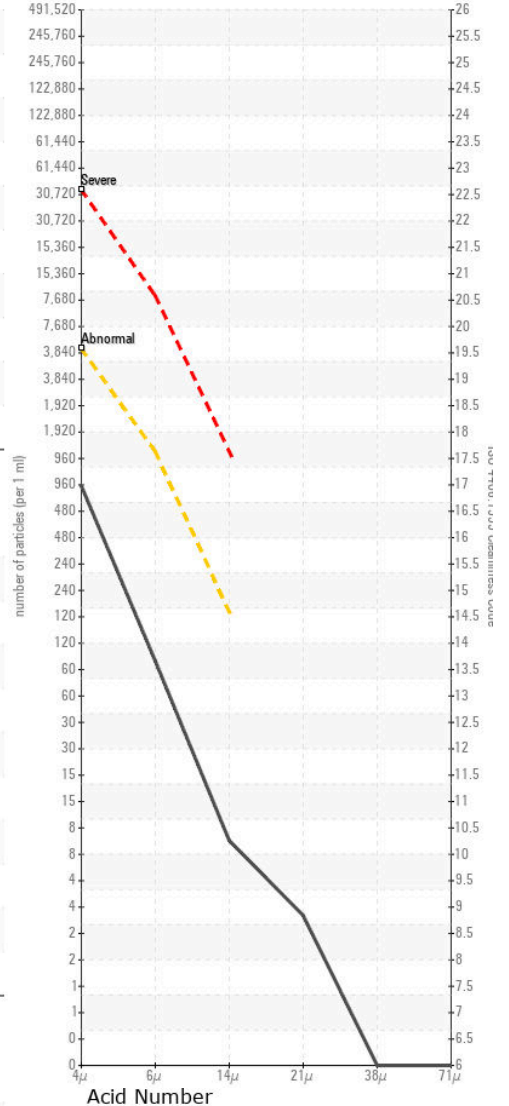
▲ Viscosity @ 40°C



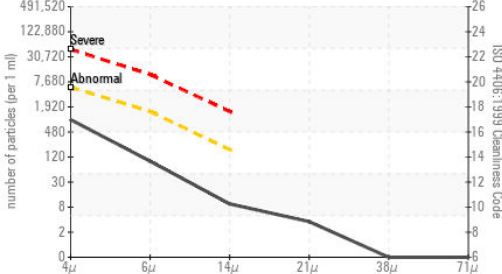
Ferrous Alloys



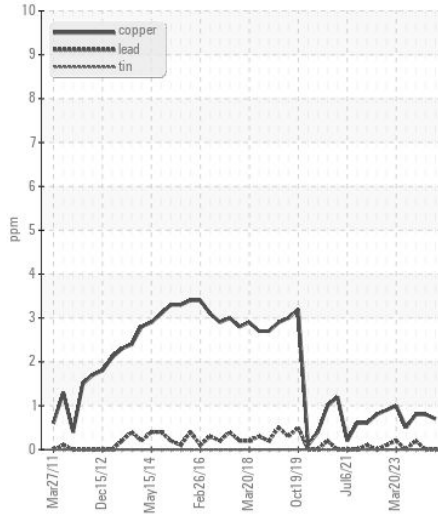
Particle Count



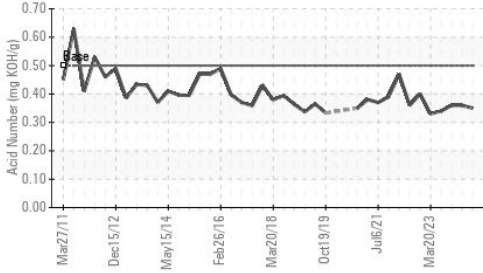
Particle Count



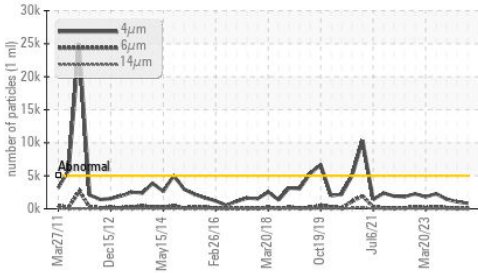
Non-ferrous Metals



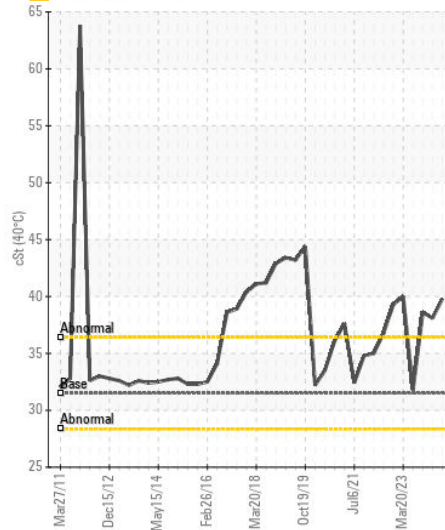
Acid Number



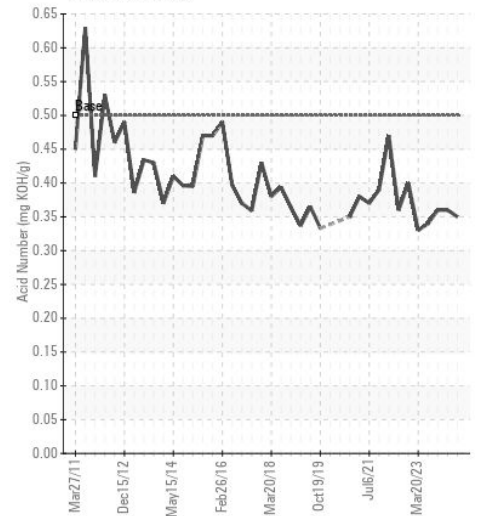
Particle Trend



▲ Viscosity @ 40°C



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0836405
Lab Number : 02626071
Unique Number : 5759203
Test Package : MAR 2
Received : 02 Apr 2024
Tested : 03 Apr 2024
Diagnosed : 03 Apr 2024 - Kevin Marson

CANADIAN COAST GUARD
 CCGS TELEOST, PO BOX 5667, 280 SOUTHSIDE RD.
 ST. JOHN'S, NL
 CA A1C 5X1
 Contact: Chief Engineer
 TeleostCE@ccgs-ngcc.gc.ca
 T: x:
 F: (709)772-3652

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.