



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Steering Gear Compartment
 Machine Id
G5-26134 STEERING GEAR JOHN HASTIE 4 RAM (S/N HG 10788)
 Component
Steering
 Fluid
PETRO CANADA HYDREX AW 100 (225 LTR)

RECOMMENDATION

We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0855448	WC0772082	WC0603773
Sample Date		Client Info		01 Apr 2024	17 Sep 2023	09 Feb 2023
Machine Age	mths	Client Info		654	0	0
Oil Age	mths	Client Info		0	0	0
Filter Age	mths	Client Info		29	0	0
Oil Changed		Client Info		Not Changed	N/A	Not Changed
Filter Changed		Client Info		Not Changed	N/A	None
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Copper and tin ppm levels are abnormal.

Iron	ppm	ASTM D5185(m)	>50	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>15	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>5	0	0	0
Lead	ppm	ASTM D5185(m)	>10	4	6	6
Copper	ppm	ASTM D5185(m)	>50	▲ 187	▲ 245	▲ 210
Tin	ppm	ASTM D5185(m)	>5	▲ 14	▲ 18	▲ 16
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

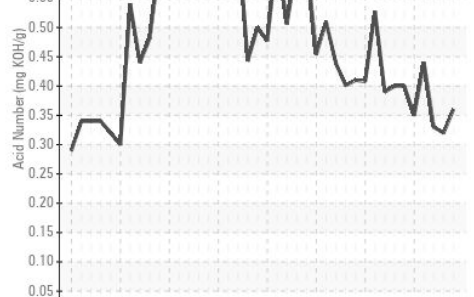
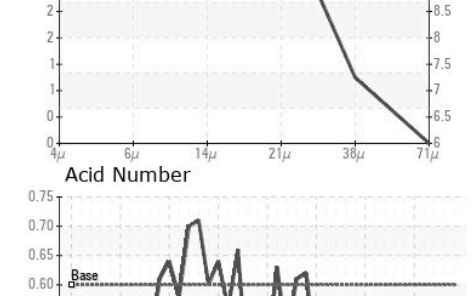
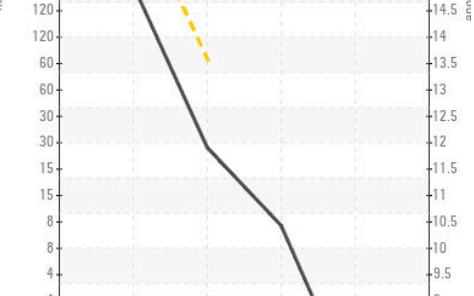
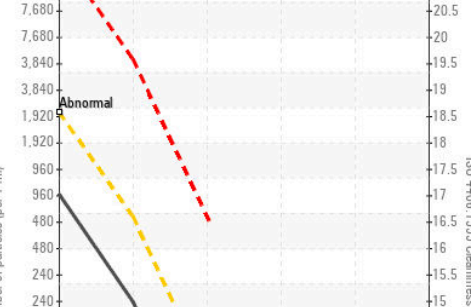
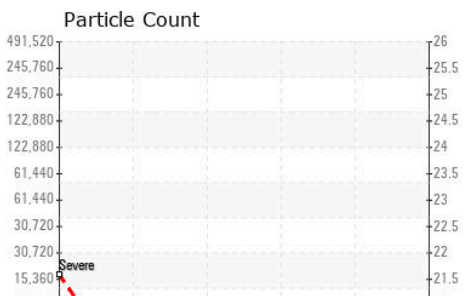
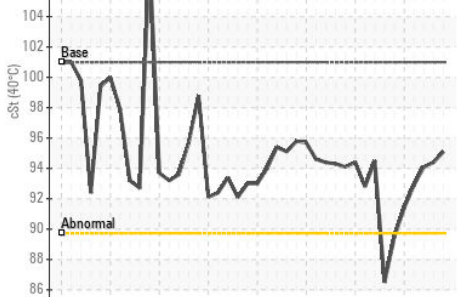
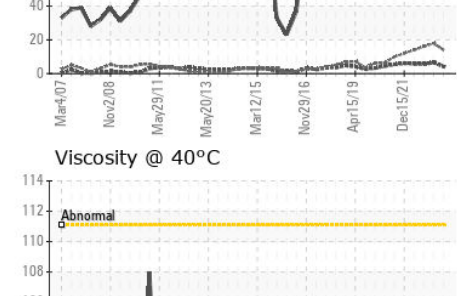
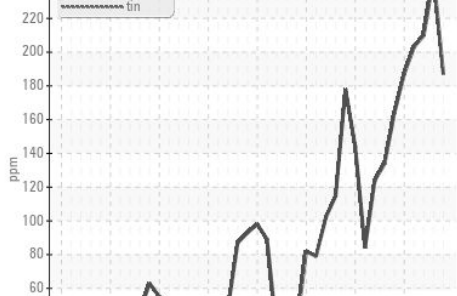
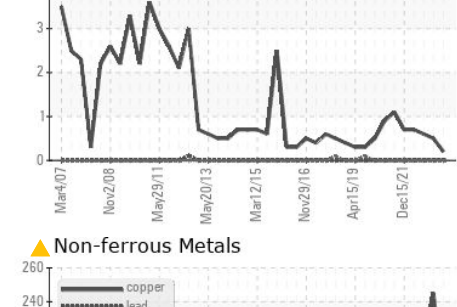
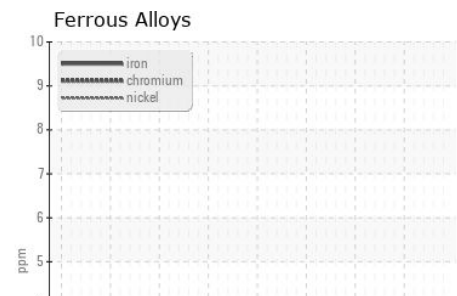
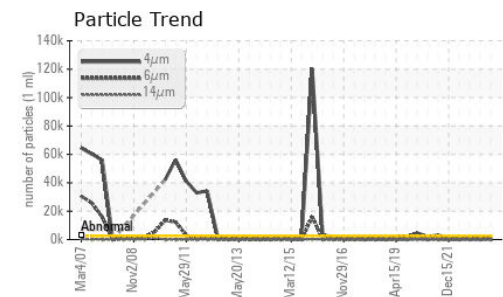
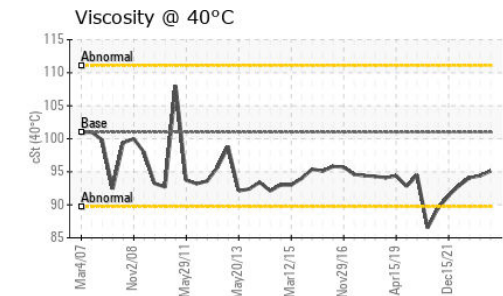
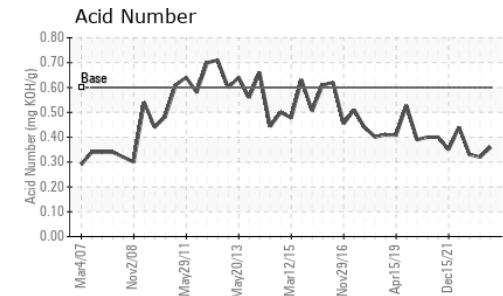
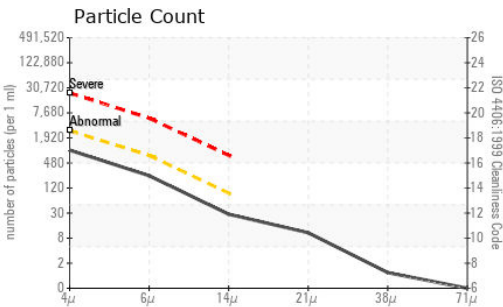
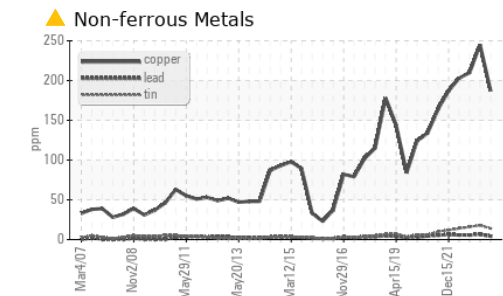
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	0	<1	0
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>2500	857	1350	1274
Particles >6µm		ASTM D7647	>640	209	305	319
Particles >14µm		ASTM D7647	>80	25	31	29
Particles >21µm		ASTM D7647	>20	9	11	6
Particles >38µm		ASTM D7647	>4	1	2	0
Particles >71µm		ASTM D7647	>3	0	1	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	17/15/12	18/15/12	17/15/12
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*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	82	69	71
Calcium	ppm	ASTM D5185(m)	50	72	70	73
Phosphorus	ppm	ASTM D5185(m)	330	325	339	365
Zinc	ppm	ASTM D5185(m)	430	359	357	357
Sulfur	ppm	ASTM D5185(m)	760	776	747	784
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.36	0.32	0.33
Visc @ 40°C	cSt	ASTM D7279(m)	101	95.1	94.4	94.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0855448
Lab Number : 02626753
Unique Number : 5759885
Test Package : MAR 2
Received : 04 Apr 2024
Tested : 05 Apr 2024
Diagnosed : 05 Apr 2024 - Kevin Marson

CANADIAN COAST GUARD
 CCGS GRIFFON, PO BOX 1000, 401 KING ST.W
 Prescott, ON
 CA K6V 5T3
 Contact: Laurie Bosley
 Laurie.Bosley@dfo-mpo.gc.ca
 T:
 F: (519)383-1994

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.